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THE RELATIONSHIP OF EDUCATIONAL POLICY
TO LANGUAGE AND COGNITION IN DEAF CHILDREN

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Education

by
Priscilla Shannon-Gutierrez

June 1998


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... let my song give blessing and insight to
those who cannot see for themselves ...

Psalm 40

ABSTRACT

Historically, the education of the deaf has not been successful. In spite of the return of manual communication in the education setting, deaf children still lag academically behind their peers. American Sign Language (ASL), the natural language of the deaf community, has not been the language of instruction in many educational settings for the deaf. Emphasis has been on language learning through the use of coded forms of English, such as Signing Exact English (SEE). Emphasis also has been on amplifying sound in an attempt to get deaf children to learn to speak. Children who have had limited linguistic experiences within their sociocultural or socioeducational environments lack the cognitive tools required for academic success. For deaf children, the systematic denial of the recognition of and/or use of ASL within the classroom often has translated into pedagogical practices that do not enhance cognitive development. In many ways, this parallels the experiences of other language minority students in bilingual education programs where access to the core curriculum has been limited because of reduced comprehensible input. This project examined deaf education and bilingual education policy at the federal, state and local levels, and how said policy translated into pedagogical practices at the two sites selected for the study. The project included interviews with the various

constituents responsible for implementation of policy at the two sites, as well as informal observations in the special education and mainstreamed classrooms which the focal student, a profoundly deaf eight-year-old boy, attended. This project sought an answer to the question, "What is the relationship between educational policy, language development and cognitive development in deaf children?" The results of this project indicated that there is a lack of a cohesive, research-based educational policy that facilitates cognitive development in deaf children. The sociolinguistic experiences of the focal student within the various classrooms he attended vacillated between the use of ASL, SEE, and oral English. Knowledge of research-based pedagogical practices, as well as knowledge of educational policy among the constituents responsible for implementation of said policy varied, and in some cases, was quite limited. The implications of these findings are that the lack of a research-based deaf educational policy and the fragmented interpretation of present-day deaf educational policy limits the sociolinguistic experiences of deaf children, which, in turn, limits their cognitive development and academic potential.

TABLE OF CONTENTS

ABSTRACT.....	iii
CHAPTER 1: Introduction.....	1
Background to the Study.....	4
Statement of the Problem.....	6
Research Question.....	7
Definition of Terms.....	7
Theoretical Rationale.....	8
CHAPTER 2: Review of Related Literature.....	10
Introduction.....	10
Sociohistorical Background.....	10
Deaf Education (1817-1975).....	10
Total Communication.....	15
Education of All Handicapped Children Act (PL94-142).....	16
Individuals with Disabilities Act (PL101-476).....	17
Americans with Disabilities Act (PL101-336).....	18
Mainstreaming.....	18
Sociocultural Background.....	20
Cultural Beliefs.....	20
Classroom Practices.....	26
Language and Cognition within a Sociocultural Framework.....	30

Deaf Bilingualism.....	39
Background.....	39
Language Acquisition versus Language	
Learning.....	42
Deaf and Hearing Bilingualism.....	43
Metalinguistic Development.....	45
Bilingual Educational Policy and the Deaf.	47
Summary.....	50
CHAPTER 3: Design and Methodology.....	53
Overview.....	53
Data Collection.....	54
Educational Policy.....	55
Federal Level.....	55
State Level.....	61
Local Level - Desert View County.....	65
Local Level - Poppy Hill School District..	67
Local Level - Arroyo Seco School District.	68
Description of Focal Student.....	69
Site Selection.....	72
Site Description - Panguitch Elementary School.	75
Language Use and Development - Panguitch	
Elementary School.....	79
Mainstreaming Practices - Panguitch	
Elementary School.....	84
Deaf and Hearing Bilingualism - Panguitch	
Elementary School.....	87

Site Description - Vista del Lago Elementary School.....	88
Language Use and Development - Vista del Lago Elementary School.....	89
Mainstreaming Practices - Vista del Lago Elementary School.....	93
Deaf and Hearing Bilingualism - Vista del Lago Elementary School.....	94
CHAPTER 4: Analysis and Results.....	97
CHAPTER 5: Discussion.....	104
Interpretation.....	104
Implications.....	112
APPENDIX A: Members of the Special Education Local Plan Area.....	117
APPENDIX B: Diagram of County and District Level Personnel and Their Respective Locations.....	118
APPENDIX C: List of Interview Questions.....	119
REFERENCES.....	121

Chapter 1

Introduction

Language plays a most critical role in the development of cognition and communicative competence in humans. Language is required to process information, construct meaning and participate in human interaction. Children who have limited language capabilities are disadvantaged learners. Proficiency in language is critical for facilitating communication and academic success (Daniels, 1994). The underlying causes of children's difficulties in the educational setting often have been presumed to be the result of some innate problem within the child rather than being socioculturally situated and constructed (Mehan cited in Wertsch, 1991). Children who have had limited linguistic experience within their social environment lack the cognitive tools required for academic success.

Within their predominantly oral sociocultural experiences, deaf children historically have lacked enough proficiency in oral language and signed language to facilitate their cognitive development. And in spite of the return of manual systems of communication in the educational setting, deaf children still lag academically behind their hearing peers much in the same way that they did 80 years ago when oralism was the pedagogical norm (Strong, 1992). American Sign Language (ASL), the natural language utilized by the deaf community, has not been the language of

instruction in many educational settings for the deaf. Emphasis has been placed on language learning through the use of coded forms of English. It has been assumed that once a deaf child knows the coded form, this knowledge of English will enable them to easily proceed towards literacy (Ramsey, 1993). This assumption ignores the fact that many deaf children come to school linguistically and cognitively disadvantaged because their hearing parents are unable to effectively communicate with them through signed language (Meadows, as cited in Ramsey, 1993). A small percentage of deaf children come from deaf parents who spontaneously sign a natural language and who can provide a sociocultural milieu which facilitates cognitive development. Over 90 percent of deaf children come from hearing parents who either do not sign with them or are not fluent enough in signed language to provide spontaneous language acquisition and cognitive development (Drasgow, 1993).

The acquisition of a natural signed language such as American Sign Language and the language learning of English for deaf children in many ways parallels the experiences of other second language learners. If we define a bilingual person as one who uses two or more languages in everyday life, then a deaf person who signs in American Sign Language and who uses English to communicate with the hearing majority can be considered as bilingual (Grosjean, 1992). Minority languages and minority cultures, for the most part,

have had only a marginal place in the educational setting. The deaf educational context is no exception.

Deaf educational policy has traditionally focused on the transformation of the deaf student into a hearing child. It has been grounded in the mainstream culture of the hearing population who largely control deaf education, while ignoring the specific needs of the profoundly deaf who cannot process language auditorally. The philosophy which drives much of present day deaf educational policy can be traced back to the nineteenth century opinion that all people process language auditorally and that deaf people must live as much like hearing people as possible (Winefield, 1987). Research has played little or no role in shaping deaf educational policy (Moore, 1990).

This paper seeks to understand why so many deaf children do not succeed academically and how educational policy enhances or inhibits their cognitive development. This paper examines deaf educational policy at the federal, state, and local level and how said policy has been interpreted at the two sites attended by the focal student of this study, an eight-year old profoundly deaf boy. It investigates the sociocultural and socioeducational experiences of the focal student as they pertain to the two sites which are run by the same educational agency, in conjunction with two local school districts. This paper discusses language development within a

psychosociolinguistic framework, exploring the social functions of language and how they relate to cognitive development. And finally, this paper discusses bilingualism within a deaf and hearing framework, investigating issues of language acquisition, language learning and cognitive development.

Background to the Study

Historically, the education of the deaf has not proven very successful. Traditionally educators have equated deafness with the inability to speak or hear English. American Sign Language (ASL), the natural language of the deaf, largely has been ignored as a cognitive tool. The focus has been on amplifying sound, teaching deaf children to speechread as well as trying to get them to speak (Ramsey, 1993). The oral approach, which prohibited the use of any gestures or signing, was the dominant method for teaching language and other academic subjects to the deaf for the better part of this century. With the advent of the Total Communication approach during the 1970's, manual communication became part of the educational setting for the deaf (Barnum, 1984). However, this approach utilizes a simultaneous manual and oral component, echoing the nineteenth century opinion that deaf children must learn to be like hearing children. Many educators of the deaf have believed that the communication barrier that deaf children suffer from could be broken simply by teaching the deaf

child to read English (Akamatsu & Andrews, 1993). This belief led to the development of various manual codes for English. Signing Exact English (SEE) is reportedly the most commonly used code within deaf education (Ramsey, 1993). Educators have assumed that the mastery of coded English would enable deaf children to easily proceed towards literacy. However, deaf children's attempts at literacy development often occur within unintelligible interactions (Ramsey, 1993). Very few teachers of the deaf are deaf adults fluent in American Sign Language. The majority of teachers for the deaf are hearing persons who are not fluent in both American Sign Language and coded English (Erting, 1980). And in spite of the inclusion of coded English in deaf classrooms, literacy rates among deaf children remain below that of their hearing counterparts.

American Sign Language (ASL) and English do share the same lexography, but linguistically are considered two distinct languages. The syntactical structure of ASL differs considerably from that of standard English and includes non-manual grammatical markers such as eye, head, face and body movements. Additionally, certain English words have no sign in ASL and must be fingerspelled. In the 1960's, ASL was recognized as a bona fide, natural language (Battison & Baker, 1980). However, in spite of this designation as a natural language, the acquisition and use of ASL often has been denied or excluded in the deaf

classroom (Lane, 1993). Language learning through coded English remains the focal point of instruction (Ramsey, 1993).

Statement of the Problem

Deaf children from hearing families often enter school without competence in a natural human language (Ramsey, 1993). Their familial social milieu results in linguistic, communicative and cognitive deficiency.

Neither the oral method nor the Total Communication approach has been completely successful in deaf education. The academic achievement of deaf children still lags significantly behind that of their hearing peers. And in spite of its recognition by linguists as a language, ASL remains excluded from the deaf education process, while English, in its coded form, remains the focal point of instruction (Ramsey, 1993; Hayes & Dilka & Olson, 1991).

Additionally, deaf people remain locked out of deaf education. The linguistic and cultural role models needed for language and cognitive development are not available to deaf children of hearing parents who are placed in classrooms with hearing teachers not fluent in a natural signed language and whose focus is on an artificial, coded form of English.

Given the academic failure of the majority of deaf children, what is the sociohistorical background that has shaped deaf educational policy? What does the resulting

socioeducational context look like? What is the sociolinguistic milieu for deaf children and how does that milieu foster or inhibit language and cognitive development?

Research Question

This paper will attempt to explore an answer to the question: What is the relationship between educational policy, language development and cognitive development in deaf children?

Definition of Terms

For the purposes of this study, the following definitions apply:

1. American Sign Language (ASL) is the language which deaf people in the United States and Canada use to communicate. It is considered a natural human language by linguists.
2. Signing Exact English (SEE) is a coded form of English. It is reportedly the most widely used of the various coded forms.
3. Oralism is a teaching method which stresses speaking skills and the use of any residual hearing that a deaf person may have. It prohibits the use of any gestures or signing.
4. Individualized Education Plan (IEP) is a written statement of an educational plan designed to meet the needs of a handicapped student.

5. Least Restrictive Environment (LRE) is considered the optimum educational environment with the fewest barriers to learning. Historically, this has been interpreted as the mainstreamed regular education classroom.
6. Natural Language is the language normally used within a cultural group or community and with which the cultural group or community identifies itself by.
7. Cognition is the internalization and appropriation of concepts which range from the concrete elementary level to the higher abstract level.

Theoretical Rationale

The problem and the background information discussed above suggest the need for a study of deaf educational policy which examines its sociohistorical roots and the sociocultural contexts which guide its implementation at the classroom level. Deaf educational policy is not grounded in data nor research, but appears to have its basis in opinion, unexamined beliefs and assumptions about deafness which date back to the nineteenth century. The background also suggests the need to examine the sociocultural contexts in which deaf children learn as a means to understanding why so many deaf children are not successful academically. And finally, the background suggests a need to examine the sociolinguistic contexts of deafness and learning from a

bilingual perspective. Our interpretation of bilingualism is expanding and the consideration of deaf bilingualism, within a psychosociolinguistic framework, as one of the bases for policy setting, implementation, and pedagogical practices may provide a new avenue to improve the academic success of deaf children.

Chapter 2

Review of Related Literature

Introduction

The review of related literature for this study will focus initially on the sociohistorical aspects of deaf education; examining policy and practices from the nineteenth into the twentieth century. Following this sociohistorical perspective, language acquisition and cognitive development in deaf children and its effect on socioeducational contexts and pedagogical practices will be reviewed. The related literature on language and cognition within a sociocultural framework then will explore cognitive development as a social event, utilizing language as a tool. And finally, a review of the literature on hearing and deaf bilingualism, focusing on language acquisition, language learning, and bilingual education policy will be examined.

Sociohistorical Background

Deaf Education (1817-1975).

The first school for the deaf in the United States was founded in 1817, by Thomas Hopkins Gallaudet, in Hartford, Connecticut. The school, entitled the American Asylum for the Education of the Deaf and Dumb, was primarily a manual school (Winefield, 1987). The Asylum, while not discouraging the use of speech, encouraged the use of manual communication through signed language. Gallaudet's policy decision to encourage signed language as a learning and

communicative tool in the classroom was influenced by his 1815 visit to France's Royal School for Deaf-Mutes where he learned signed language (1987). Laurent Clerc, one of the teachers at the school in France, returned to the United States with Gallaudet and became the first deaf person to teach deaf students in this country. He taught at the Asylum for many years and in the subsequent debate between the oralists and the manualists, became one of the strongest opponents of oralism.

At the time of the school's inception, two educational camps had formed which espoused very distinct deaf educational philosophies. The manual camp was led by Gallaudet and his son, Edward Miner Gallaudet, who also taught at the Asylum. Edward Miner Gallaudet would later establish the National Deaf-Mute College which subsequently became Gallaudet University, in honor of the elder Gallaudet. Edward Miner Gallaudet's belief in the deaf's need for manual communication was profoundly influenced by his experiences with his mother, Sophia, who herself was deaf and depended upon signed language to communicate. Gallaudet, Clerc, and the other members of the manualist camp believed that many deaf children could not learn to speak or speechread well enough to use it as their primary means of communication.

The oralist camp was led by Alexander Graham Bell, the inventor of the telephone, who believed that almost all

people process language auditorally. Bell's mother, Eliza, hearing impaired during her childhood, had intelligible speech and good language skills. For Bell, she provided a model of a successful deaf woman who did not have to rely on manual communication. Bell's father, Melville, was the developer of Visible Speech, a system that described oral sounds through written symbols which was employed to improve speech articulation and later used with hearing impaired children to aid in speech development. Both Bell's mother and his father's system directly influenced Bell's belief in an oralist approach to deaf education. Proponents of the oralist philosophy felt that deaf people must be prepared to live as much like hearing people as possible and included educators such as Horace Mann and Samuel Gridley Howe (Winefield, 1987).

The debate between the oralist and manualist camps raged on during the second half of the nineteenth century. Gallaudet, when confronted with the oralist successes of students such as Mabel Hubbard (later Bell's wife) and Jeanie Lippitt, attributed their success to two critical factors. One was that both girls were postlingually deaf (as was Eliza Bell). That is, all three had lost their hearing during childhood and benefited from having learned spoken language prior to their hearing losses. The second factor was that both students came from wealthy families who could afford the best education for their daughters.

Gallaudet argued that small class sizes and individual instruction which were requirements of the oral program were a luxury that the average family with a deaf child could not afford.

The debate reached a climax in 1880, the year the International Convention of Instructors of the Deaf took place in Milan, Italy. After both proponents of the oral and the manual philosophy presented their respective cases, the convention members excluded deaf educators from the vote and decided overwhelmingly to support oral education in spite of the objections of deaf educators such as Clerc (1987, p. 35). The oralists, believing that manual communication restricted or prevented the growth of speech and language skills, utilized the convention's decision to support oralism to sway educational policy in both Europe and the United States. The decision marked the turning point in deaf education towards the exclusive use of oral methods and the exclusion of deaf teachers and manual communication in the classroom. The ensuing pedagogical practices created a communicative barrier between hearing teachers who would not use signed language in the classroom and their deaf students who could not successfully process auditory language. Deaf students, denied the use of signed language for communication and cognitive development, began to fall further and further behind their hearing peers; thus, marking the decline in academic achievement of the

deaf from literate and communicative equality with hearing counterparts toward functional as well as academic illiteracy (Sacks, 1989).

Oralism persisted as the overwhelmingly predominant method of educating the deaf in America during the rest of the nineteenth century and well into the twentieth century, until the 1970's when Total Communication reintroduced signed language back into the deaf classroom. During its reign as the accepted method of instruction, oralism effectively shut deaf people out of deaf education (Barnum, 1984). The percentage of deaf teachers for the deaf, which was close to 50 percent in 1850, fell to 25 percent within decades, and by 1960 was at twelve percent (Sacks, 1989, p. 27).

For much of the twentieth century, deaf students attended residential schools which were run by hearing educators. During the late 1970's, a shift occurred and deaf students began to attend programs located in regular educational settings (Ramsey, 1993; Schildroth & Hotto, 1995). Currently, most deaf children (over 75 percent) attend programs in regular public elementary schools whose Total Communication policies call for instruction through spoken English accompanied by some manual component (Ramsey, 1993; Schildroth & Hotto, 1995). And while ASL has been increasingly utilized in some classrooms, the instructional emphasis for the most part has been on the use of SEE.

Total Communication

With the recognition of ASL as a bona fide, natural language — primarily through the research of William Stokoe (Battison & Baker, 1980), the Total Communication policies that were initiated in the 1970's saw the return of manual communication in the deaf classroom. In theory, Total Communication allows for a variety of communication methods to communicate with and teach deaf students including manual language, finger-spelling, writing, speech, pantomime and drawing. In practice, Total Communication has meant that the teacher accompanies spoken English with signs (Lane, 1992). This simultaneous communication requires bimodal output on the part of the teacher as well as bimodal input on the part of the deaf student. A study conducted by Strong & Charlson (1987) found that comprehension was frequently diminished as a result of attempts to cope with the strain of simultaneous oral and manual communication. The situation was further complicated by the need to simultaneously communicate while bimodally reconciling the syntactical differences between English and ASL. The distinction between true Total Communication and simultaneous communication has been lost to educators and has resulted in very little communication and learning with deaf children (Lane, 1992).

The most widely reported manual system used within Total Communication is not a signed language, but rather a

coded form of English (Ramsey, 1993). And, as Erting (1980) reported, most hearing teachers of the deaf are not fluent in both English and ASL. Thus, coded English, in the guise of Total Communication, became the methodology for teaching deaf students, ignoring fundamental issues of culture and language and the role they play in cognitive development.

Education of All Handicapped Children Act (PL94-142).

In 1975, the Education of All Handicapped Children Act (PL94-142) was passed by the Legislature. The law had its basis in the Brown v. Board of Education decision of the 1950's, which upheld the right to a discriminate-free public education. PL 94-142 mandated education which would meet the needs of the handicapped and which would emphasize special education for the disabled. The law attempted to protect the civil and educational rights of the handicapped by guaranteeing a free, appropriate education for all handicapped children. The Federal Government estimated that of the eight million handicapped children residing in the United States, at least half were not receiving an adequate education, and that one million were receiving no education at all.

The law introduced the concept of least restrictive environment (LRE), which attempted to remove the educational barriers which denied the handicapped access to the curriculum. The legal interpretation of least restrictive environment in special education initiated the trend of

mainstreaming handicapped children in the regular education classroom with their more capable peers. Proponents of mainstreaming believed that virtually all handicapped children could benefit from placement in a regular education classroom. More significantly, it was considered beneficial to regular education students who could be exposed to different kinds of people (Ramsey, 1993). In spite of the absence of the term in actual legislation, least restrictive environment appears to have taken precedence over appropriate education in placement for deaf children. During the 1980's, Manual Ten, issued by the Assistant Secretary of Education, interpreted least restrictive environment to mean that a child first had to fail in a regular education setting before consideration for placement in a special setting, regardless of the appropriateness or the feasibility of placement (Cohen, 1995, p.3).

Additionally, the law categorized all types of special needs students as one class of persons (i.e., handicapped), in spite of the fact that the educational needs of each group required very different adaptations and strategies.

Individuals with Disabilities Education Act (PL101-476).

The Education of the Handicapped Act was amended in 1990, and changed to the Individuals with Disabilities Education Act (IDEA). The IDEA required states to mainstream disabled children whenever possible and

specifically prohibited schools from placing disabled children outside the regular classroom if they could be placed with support services in the regular classroom. Additionally, Congress stated a clear preference for the inclusion of disabled children in the regular education setting.

Americans with Disabilities Act (PL101-336).

When signed into law by President Bush on July 26, 1990, it was cited by the President as a historical benchmark as the first comprehensive civil rights law for the disabled. The law attempted to include the disabled as full fledged citizens who were entitled to legal protection which would ensure equal opportunity and access to mainstream American life. The law specifically prohibited discrimination by public entities and/or agencies and guaranteed that any benefit or service provided to the disabled must be at a comparable level to that provided to the non-disabled public.

Mainstreaming.

In spite of the fact that it may prove more beneficial to hearing students than to the deaf students it is purported to serve (Ramsey, 1993), mainstreaming has been routinely practiced at public school settings for deaf children. Deaf students, depending upon the situation and available resources, may, by law, be mainstreamed up to 100 percent of the school day. For those students mainstreamed

into regular classrooms, a signed language interpreter may be provided. They are rarely employed to accompany the child throughout the entire school day. However, many interpreters are insufficiently skilled and few are certified (Lane, 1992). It is not uncommon for the mainstreamed deaf child to require the use of an interpreter for communication with hearing peers and teachers because of the language barrier. Many hearing teachers of the deaf in mainstreamed classrooms are unable to sign with the deaf child, thus the interpreter takes on the role of teacher as well. Additionally, few hearing peers are able to communicate with mainstreamed deaf peers. Those that can, often are limited to commands or evaluations - what Ramsey (1995, p. 208) refers to as "caretaker-like" language (e.g., "Sit down," "Look," "Hurry," "Bad"). The linguistic and social isolation which the deaf child experiences in the mainstreamed setting often results in the most restrictive environment instead of the least restrictive environment intended by the legislature.

As Stinson & Leigh (1995, p. 153) observed:

Communication access is a serious problem that frequently hinders social relationships and development in the mainstream setting ... research on the social experiences of deaf children in the mainstream setting has indicated that, for many students, the likely consequence of such a

placement is social isolation.

Sociocultural Background

Cultural Beliefs.

Legislation has assumed that the education of the handicapped is not an academic process; but rather, a socialization process which requires assimilation with "normal" models (Ramsey, 1993, p. 23). If deaf children are to function like their "normal" hearing peers, then the mainstreamed classroom provides a salient opportunity for deaf children to "learn" to be like the hearing peers. However, Barnum (1984, p. 404) questioned this assumption made about the need for deaf children to be more like hearing children:

For too long we have let our desire to create "normal" children, that is seemingly hearing children, outweigh the facts of research in determining educational policy for deaf children ... it was decided that educating deaf people meant teaching them to speak, read and lipread English ... where was the study group that gave credence to this theory? When does any professional field accept a hypothesis without backing and instigate its implications without reservation?

The history of deaf education has been marked by almost total ignorance about the place of signed languages in the family of human languages. This ignorance has been

translated in tragic ways into social and educational policy for the deaf (Padden & Humphries, 1988). A century of oralist pedagogy has dominated deaf education without any long term research to support its practices. The prevailing opinion of deafness as a pathological condition which requires corrective measures has shaped policy while ignoring the deaf community's belief in itself as an ethnolinguistic minority.

Educational research plays an important role in the development of effective educational policy and must be carefully considered when forming policy. Successful educational research must bring about changes in the educational system that are of demonstrable benefit to children. Anything less is unacceptable (Moores, 1990). In special education, a gap exists between theory and practice in spite of the fact that isolation of one from the other is destructive (1990). In 1988, the Commission on the Education of the Deaf (p. 42), in its report to the President and to the Congress, urged that "outmoded educational policy be brought into line with recent scientific discoveries in linguistics." An obstacle to bridging this educational gap between research and its application has been the perception of research and adoption as separate domains of universities and public schools. This viewpoint has led to frequent educational practice that is neither theory nor data based (Moores, 1990). Thus, the

need to conduct more research in deaf education and utilize the resulting data to influence policy is of paramount importance.

According to Valsiner (1989), language plays a vital role in cultural expression and identity. A culture comprises a set of learned behaviors within a group who utilize their own language as a means to express and maintain the rules and values of the group (Padden, 1980). Often a language is specifically identified with a particular cultural group (e.g., Yiddish with Jewish people). Cultural learning includes all of the learning which enables a member of a family and/or community to behave appropriately within that group (Heath, 1986).

Deaf people have had a long history of being treated as medical cases who must compensate for their deafness by using a signed language (Padden & Humphries, 1988). Prior to its recognition as a bona fide, natural human language, ASL was considered a poor form of English or merely a collection of gestures that deaf people were forced to use until they could "master" correct English, ignoring the cultural and communicative role which ASL mediates within the deaf community. For deaf people who use signed language, the implication is that their choice makes them lesser humans, unable to achieve their ultimate human potential which can only be realized through spoken language (Padden & Humphries, 1988). There is a distinct difference

between the deafness-as-culture self-view of the deaf community and the hearing community's perception of deafness-as-disability.

By regarding deaf students as "without a language," the hearing population has culturally and linguistically oppressed deaf students (Stevens, 1980, p. 179). Language is considered the most essential characteristic and ability of humans. If a person or group is said to be without a language, then the accompanying view is that the person is not whole or complete (1980, p. 179). Within a deaf context, many hearing people believe that a deaf person cannot be complete without the ability to hear and function as a hearing person. According to Lane (1992, pp. 7-9):

In the hearing stereotype, deafness is the lack of something, not the presence of anything. Silence is emptiness ... the deaf person is isolated ... deaf people can't really communicate ... any amount of English is better than the most eloquent American Sign Language.

Grounded in its auditory mode of processing language, the dominant hearing society has attempted to superimpose its image of the familiar hearing world on the unfamiliar world of deaf people. Hearing paternalism sees its task as restoring deaf people to society. In its quest to remake the deaf child into a "normal" child, the hearing world often fails to understand the structure and values of deaf

culture (Lane, 1992). It is by and large the hearing world which controls deaf education and to some extent the deaf community. Its focus has been on making the deaf child talk either through the use of hearing aids or more recently, through cochlear implants. However, effective auditory processing of language, even with the use of either of these devices often is not a possibility for many deaf children.

The language deficiency myth which has pervaded the American educational system, considers the language of students from minority cultures as inadequate or inferior to English (Sue & Padilla, 1988). This belief system has allowed educators to form policies that expect language minority students to abandon their native language and culture; to be made over and properly acculturated into the mainstream by the learning of English (Flores, Teft-Cousin & Diaz, 1991). Within a deaf educational context, the myth has inculcated in hearing teachers of the deaf the belief that any English, even unintelligible English, is preferable over signed languages.

Sue & Padilla (1988), proposed that the cultural deficit viewpoint held by the dominant cultural group attributes the academic failure of various language minority students to cultural deficits which are either inherent in the group itself, its culture, or the result of discrimination against the group. An essential point of this deficit model is that minority language groups are

incapable of acquiring the necessary cultural competence needed for social and academic challenges. Thus, the hearing society, embracing the cultural deficit viewpoint, has viewed deaf people historically as "deaf and dumb." Educators, in searching for an explanation as to why so many deaf children and other language minority students demonstrate such a significant rate of school failure have tended to decontextualize their explanations, often ignoring the dynamic relationship between sociocultural factors and academic outcomes (Cortez, 1986). Freire (1993) maintained that decision-making leaders cannot subscribe to the myth that people are ignorant. They must recognize that varying levels of knowledge based on cultural experiences may exist, but no one single type of knowledge can be imposed upon a person. Transformation and realization of the self occurs through true dialogue mediated by the experiences of the individual. Language is not the privilege of a few, but the natural right of everyone.

Less than ten percent of deaf children come from deaf parents who spontaneously sign and transmit deaf culture to them (Drasgow, 1993). Over 90 percent of deaf children come from hearing parents whose experiences are entrenched in the hearing culture's viewpoint of deafness as a deficiency. This negative perception of the deaf and signed languages often has resulted in a huge cultural and communication gap between non-signing hearing parents and their non-speaking

deaf children. The great wealth of knowledge that the hearing child learns incidentally through the natural day-to-day sociolinguistic interactions among family members is lost on the deaf child whose hearing family refuses to communicate with them (Stevens, 1980), often resulting in language and cognitive deficiencies. However, deaf children born into deaf families suffer no such linguistic/cultural casualty. Deaf children who enter the school setting with strong ASL skills possess the language and cognitive tools required to succeed. Research has shown that the academic performance of deaf children from deaf parents excels far beyond that of their non-signing peers (Christensen, 1989).

Classroom Practices.

Most deaf education programs involve a simultaneous communication approach between the hearing teacher and deaf child. That is, using voice accompanied by some type of signing. However, as previously mentioned, Strong and Charlson (1987) found that this approach resulted in diminished student comprehension. Additionally, most teachers in deaf classrooms are not fluent in both ASL and English. In her research in a deaf classroom, Erting (1980) found that the formal classroom signing used by hearing teachers was strikingly different from the signed language conversations of deaf people. When studying the communicative patterns among deaf and hearing adults with deaf preschoolers, Erting (1988) again found significant

differences. The hearing teacher relied on manually coded English to communicate with deaf students. She frequently attempted to get the deaf child's attention without any visual or tactile signal, repeatedly expecting the deaf child to accompany their sign with voice. The linguistic focus was syntactic in nature. Often she began to sign and talk before she had the deaf children's attention. No attempt was made to repeat the part of the communication that the student had missed nor did she seem aware that the lack of access to part of her message impacted the communicative interaction. In contrast, the deaf adult working in the classroom did use visual or tactile signals appropriate within the deaf community. She did not begin signing until she had the student's attention and did not expect the students to simultaneously voice and sign. Her responses to the children focused on the meaning of the child's utterances/signs instead of the form of the utterance. The interactions of the hearing teacher with the deaf students were based on her status as a hearing teacher of the deaf, while the interactions of the deaf adult with the same students were based on her status as a deaf person/role model. The deaf adult adjusted her communicative interactions to each child's abilities and preferences while the hearing teacher's interactions were geared toward speech production and syntactic form. Erting's research illustrated how the semantic functions of

language and the mediating role they play in cognitive development have often been either overlooked or ignored in deaf classrooms where the emphasis has been on producing the correct linguistic forms of English either through speech or manual expression.

Access to a linguistic role model fluent in ASL is a critical issue for many deaf children in the school setting where most hearing adults are not native signers. If deaf children are to be active participants in dialogue leading to linguistic, cognitive and emotional development, Erting (1988, p. 193) stated the belief that at least one key adult in the classroom context should be fluent in ASL. Drasgow (1990) also maintained that the most competent users of ASL are the deaf themselves and that they should be included as language and cultural models in the classroom. At the present time, deaf people and their language are virtually shut out of deaf education. Lane (1992) recommended that the most important reform in deaf education should be to get deaf teachers, administrators and parents involved in the education of deaf children.

While the linguistic community has accepted ASL as a bona fide language, the professional educational community has not. For the most part, manual communication has been added to the repertoire of teaching skills instead of being viewed as a language of instruction. Manually coded English remains the focal point and medium of instruction. However,

Barnum (1984, p. 405) asked, "If one can ever achieve mastery of a language if one cannot receive it in the medium for which it was developed?" Speechreading and the manual coding of English were not the means by which English was meant to be produced nor received. And Ramsey (1993, p. 35) noted that:

For all the policy attention devoted to the media of communication in deaf education, the actual functions, successes or failures of communication in deaf education have long been "transparent" to many practitioners ... very little of what is "taught" to deaf children is learned by them. Since ... language is the medium which structures teaching and learning, then language is a reasonable place to investigate the sources of problems.

The exclusion of ASL in the deaf classroom has contributed significantly to the academic failure of deaf children. A crucial flaw in deaf education has been the language of instruction (i.e., coded English) since it is not a natural language that deaf children are capable of acquiring in a normal manner (Drasgow, 1993). If deaf children cannot fully comprehend the linguistic information received in English, how can competence in reading and writing be expected? It would appear counterproductive to base a deaf student's literacy development on oral language

production since the deaf cannot monitor speech output and are seldom capable of becoming native speakers of an oral language (Cicourel & Boese, 1985). Barnum (1984, p. 405) questioned whether mastering English is even a possibility for most deaf individuals, especially in programs which do not allow the use of ASL or in programs with hearing teachers not fluent in ASL.

Language and Cognition within a Sociocultural Framework

The primary function of language, whether spoken or signed, is communication and social intercourse. Real communication requires both meaning and a semiotic system to convey that meaning (Vygotsky, 1986). Language as a cultural artifact cannot be abstracted from the context in which it is utilized. Words are foregrounded in culturally specific associations, attitudes and values. These cultural values are derived from the context in which words are used and from the activities with which they are associated (Gumpers & Hernández-Chavez, 1972). The process of thinking/meaning and social situatedness cannot be separated into distinct categories; they are interdependent and language is the tool which provides the connection (Vygotsky, 1978). According to Hayes & Dilka & Olson (1991, p. 10):

The common bond that integrates a culture's history, values and attitudes into a unified social identity is language. Language provides an

avenue for investigating the complex relationship of thought, meaning and speech that is manifested in cultural behaviors and traditions. Language performs the central role in the formulation and enactment of cultural beliefs.

Human psychological functions are culturally mediated, historically developing and arise from practical activity (Cole, 1990). Human beings live in an environment which is transformed by the artifacts of prior generations. The basic function of these cultural artifacts is to coordinate human beings with the physical world and with each other (1990, p. 91). Language, as a psychological or technical tool mediates human activity and is a cultural product of the sociocultural environment in which it exists. Unlike a code which can remain static (e.g., Morse Code), language is constantly changing and evolving; a reflection of the cultural changes over time which it expresses and mirrors.

Parents, as mature members of a culture have their own specific ideas about what sorts of behaviors convey meanings. As parents interpret a child's gestures and attempts at language, they are assimilated as behaviors which parents themselves find meaningful. These attributed meanings are culturally grounded and within parent-child interactions, culturally appropriate feedback is provided (Wells, 1986). Language as a mediational tool permits a culture to transmit socially acceptable as well as

unacceptable behaviors. It provides the cognitive mapping tool which infants and young children require in order to make sense of their sociocultural milieu.

Human cognitive functions do not appear in isolation; but rather, first appear in socialized language interactions on an intermental plane, and then later as appropriated and internalized concepts on an intramental plane (Vygotsky, 1978). Valsiner (1989) agreed with Vygotsky that all human psychological processes are social in nature and that the socialization process can be considered an active reconstruction of the parent's culture/knowledge by the offspring under their guidance (1989, p. 46).

The language experiences of an individual are shaped and developed in continuous and constant interactions with other individuals. Our language/speech is filled with others' words and utterances. Any utterance is one link in a very complex organized chain of other utterances involving members of our social milieu (Bahktin, 1986). The single utterance or voice, either spoken or signed, in spite of its creativity and individuality, cannot be a completely free form of language. It is always spoken (or signed) in relation to those around the speaker or those who will receive the speaker's message, and it is always spoken from some point of view. There can be no disengagement of self from the environment which surrounds the speaker. Within a deaf context, deaf students in their communicative

interactions with other deaf persons as well as their interactions with hearing persons are bound by the organizational principles of each social situation and the accompanying utterances which govern the specific speech genre. Deaf speech genres may include pure forms of ASL for interactions with other deaf persons, and pidgin forms of ASL which incorporate elements of English or signed English within their interactions with hearing persons. Our internal linguistic tool kit (Wertsch, 1991) allows both deaf and hearing person to pick and choose the appropriate utterances and genres specific to the social context.

The contextual milieu in which children socialize teaches them communicative competence. Expression or communication can be accomplished by a variety of mediational semiotic systems. In order to be an effective mediational tool, language must facilitate communicative and cognitive processes. Research conducted by Gee & Goodhart (as cited in Drasgow, 1993) would seem to indicate that manually coded English violates basic human linguistic processing constraints and is not a viable model for language acquisition in deaf children. Auditory language is not required by deaf children to develop into thinking adults (Hayes, Dilka & Olson, 1991). Signed language such as ASL is the semiotic tool which the deaf community privileges to convey sociohistorical as well as sociocultural information to offspring and other members. It

is the mediational tool which facilitates cognitive development in deaf children. Signed language for the deaf is the linguistic as well as the cognitive use of space (Sacks, 1989).

Human semiotic functioning - the construction and mediation of signs as tools is the means by which a person participates in their cultural and subsequent cognitive development (Valsiner, 1989). It is only through communication that human life has meaning and direction (Freire, 1970). Semiotic activity in children is the result of qualitative transformations which are sociohistorical in nature (Vygotsky, 1986). Word or signed meaning cannot be separated from thought or expression and this association between thought and meaning changes and expands over time (Hayes & Dilka & Olson, 1991). Cognitive development occurs because mediation through language within a social context aides children in making meaning (Akamatsu & Andrews, 1993).

From his research with young children, Vygotsky (1978) concluded that all higher mental functions were a result of social interaction. That is, higher level psychological or cognitive functions come about in the developing child because of the internal reconstruction of an external operation. Vygotsky considered abstract concepts independent of the immediate stimulus field the hallmark of higher mental functioning. Language as a semiotic tool provides the vehicle for the appropriation of all abstract,

complex concepts. Without language, there can be no advanced cognitive development. Sacks (1989, p. 40) reported that an eleven year old deaf child that had had no prior language experience could perceptualize categorization or generalization, but was unable to formulate abstract concepts. Because of their linguistic deprivation, the child was incapable of reflecting, playing or planning internally, rendering the child unable to develop higher concepts.

Egocentric or private speech is the link or bridge between a child's social speech and the inner speech which guides or plans practical activity and problem solving. Egocentric speech emerges when the child transfers social functions to the sphere of intrapersonal psychic functions (Vygotsky, 1978). The purpose of private speech is communication with the self for self-guiding and self-direction. Through private speech, children are able to overcome obstacles which inhibit problem-solving. It is the internalized instrument or tool of thought which assists the child in guiding or controlling their actions. When speech is turned inward, it takes on a planning function in addition to the already existing function of naming the external worlds (Vygotsky, 1978). Private speech in its early stages accompanies practical activity. At a later, more mature stage, it precedes action in a planning function. Language increasingly mediates purposeful

activity and increases the child's capability for self-regulation and metacognition. Jamieson (1995) reported that deaf children from deaf parents exhibited more mature forms of private speech in their problem-solving activities than their deaf peers from hearing parents. Her findings suggest that the high levels of linguistic social interaction between the deaf children and their deaf parents facilitated the development of private speech and the resulting higher levels of problem-solving ability.

A major step in the child's ability to carry out goal-directed activities occurs when the child independently begins to use the adult means which previously had regulated the child's activity in social interaction (Wertsch, 1979). Prior to self-regulating internalization, performance must be assisted in some manner (Gallimore & Tharp, 1990). Vygotsky (1978) postulated the existence of a Zone of Proximal Development (ZOPED) which defines the distance between the child's actual developmental level and their potential level of development. The ZOPED represents the region of cognitive development which takes place within the child (Garton, 1991, p. 95; Wertsch, 1991, p. 28). As children shift responsibility for learning from an external social sphere to an internal psychic sphere, they progress through their zone of potential development. One of the benchmarks of progression through the ZOPED is increasing self-regulating, metacognitive behavior represented through

private and inner speech (Diaz, Neal & Amaya-Williams, 1990, p. 130). What can be accomplished today with the guidance of an adult or more capable peer within social interactions potentially can be accomplished independently tomorrow. Vygotsky maintained that learning was possible only if it occurred within the ZOPED (Hayes, Dilka & Olson, 1991; Akamatsu & Andrews, 1993; Garton, 1991; Wertsch, 1991).

Participation in the ZOPED requires the establishment of mutual understanding of the task or situation. It implies a degree of engagement and collaboration between the child and the adult or more capable peer involved in the task (Garton, 1992). Language plays a critical role in this process of engagement and collaboration. Effective mediation between participants requires the establishment of shared cognition or intersubjectivity. As the learner is engaged and attends to the problem-solving task, a greater proportion of the communication is used on the task itself and less on establishing what the task is (Akamatsu & Andrews, 1993). Over time, the child requires less assistance and as learning is internalized, the capacity for self-regulating, metacognitive strategies increases (Gallimore & Tharp, 1990).

However, within the deaf child's social interactions with a hearing teacher or peer who does not privilege the same mediational language tool, the mutuality required for shared cognition often breaks down. The interpersonal

communication that is critical for cognitive development is inaccessible to deaf children born into hearing families that do not utilize signed language in the home (Akamatsu & Andrews, 1993) or in classrooms where the teacher or peers do not sign. The normal mechanism which forms the social relationships by which learning occurs is disrupted (Garton, 1992). And the focus in deaf classrooms on the syntactic form of English does little to facilitate the deaf child's making meaning or problem-solving ability. Comprehension would be enhanced if the educator were able to interpret the social meanings of particular linguistic forms. Often the use of forms other than Standard English has a negative effect on teacher-child interactions - not because the linguistic difference prevents the child from learning, but rather because the use of linguistic forms which differ from Standard English affect how the teacher perceives and behaves toward the child (Gumpers & Hernández-Chavez, 1972). Hearing teachers of the deaf need to see and understand the functions of language and how they relate to cognitive development. Their challenge is to learn that deafness is not the absence of sound, but rather, the presence of visually-based meaning and expression (Akamatsu & Andrews, 1993).

Deaf Bilingualism

Background.

If we define a bilingual person as one who uses two or more languages in everyday life, then the deaf person who signs and uses English in some form can be considered as bilingual (Grosjean, 1992). Signed language may be the primary language used by deaf people, but it is unlikely to be the sole language they know. In order to communicate with the hearing world, deaf persons must be able to use the language of the majority culture in which they reside (1992). People who speak two or more languages usually exist within and identify with a specific group or community. People who speak a minority language within a majority language context also form a community (Baker, 1993). Within their communicative interactions everyday, bilingual persons find themselves at various points along a situational continuum which influences their choice of different language modes and/or genres (Grosjean, 1992). Their linguistic tool kit (Wertsch, 1991) provides them with the information to make the appropriate choices along that situational continuum.

Baker (1993) distinguishes between simultaneous and sequential bilingualism. Simultaneous bilingualism occurs when each parent of a child speaks a different language. A deaf mother who signs ASL and a hearing father who signs in English to their child would result in simultaneous

bilingualism. Sequential bilingualism occurs when a child learns one language at home and then learns another in the school setting. The deaf child from deaf parents who signs ASL at home and then learns English in the classroom is representative of sequential bilingualism. Usually second language learning in the school setting comes about through direct instruction, while language acquisition in the home occurs through the social interaction of day-to-day activities.

Minority languages, for the most part, have had only a marginal place in the educational system, in spite of the fact that a child's first language is normally the best instrument for learning (Appel & Muysken, 1987). Educators know relatively little about how language minority children learn to use language with family members and within their communities. Few fail to realize that all language learning is also cultural learning as well (Heath, 1986). Additionally, school personnel rarely recognize that some of the fundamental notions which form the basis for language arts curricula in schools represent harsh demands for language minority students who have not internalized the norms of language and culture in academic life (Heath, 1986).

The societal status of a language is a powerful factor in assessing language vitality. When the majority language is given a higher societal status or prestige value, a shift

toward the majority language can occur (Baker, 1993). Cummins (1984, p. 93) maintained that, "The failure of educators ... to critically examine the implicit acceptance ... of dominant group values and socioeconomic differences is frequently transformed into academic deficits." For many deaf individuals a shift toward spoken English is not a possibility, thereby relegating the deaf to a linguistic and cultural limbo where ASL is considered an inferior language, and oral English remains a "desired," yet elusive goal. Freire, in addressing societal prestige (1993, p. 133), discussed the concept of cultural invasion:

Cultural invasion is always an act of violence against the persons of the invaded culture ... the invaders mold; those they invade are molded ... for cultural invasion to succeed, it is essential that those invaded become convinced of their intrinsic inferiority ... and must recognize the superiority of the invaders ... the values of the latter thereby become the pattern for the former.

The cultural background of a person is an essential aspect of personal identity which guides all social interactions, including those with the formal education system. Schools reflect, impart and contribute to the larger societal values, and in turn, societal institutions and events influence school perceptions and behaviors of minorities and how they respond to schooling (McGroarty, 1986; Ogbu &

Matute-Bianchi, 1986).

Language Acquisition versus Language Learning.

Children require a comprehensive understanding and ability in their first language before they can successfully employ the pragmatic, syntactic and semantic components of a second language. Krashen (1981) maintained that human beings functionally acquire the syntactical structure of language through their attempts to understand messages. Language use within social interactions must be mutually comprehensible in order for both participants in the interaction to construct meaning. Krashen (1981, p. 56) also discussed the difference between language learning and language acquisition:

Language acquisition is a subconscious process ... people are often not aware that they are acquiring a language ... what they are aware of is using the language for some communicative purpose. Language learning is knowing about language or formal knowledge of a language.

Successful programs for second language learners provide comprehensible communicative input in a manner that is interesting and relevant to the student. This approach recognizes that sociocultural experiences outside of the classroom form the basis for learning within the classroom; as well as assisting in language learning by employing the functional aspects of language.

For the deaf child who comes from hearing parents who do not sign, there is little sociolinguistic and/or sociocultural experiences which form the basis for learning. And rather than the natural ease of listening and speaking, as English was intended to be acquired, the deaf must use metalinguistic symbols within coded English to help them construct meaning. This does not provide appropriate linguistic information for many deaf children (Drasgow, 1993; Hayes & Dilka & Olson, 1991). The failure of deaf children to acquire fluency in English has not been because their cognitive or linguistic processes are inherently defective. Rather, it has occurred because of the methods which are being used to teach English to the deaf do not provide enough adequate input for understanding (Drasgow, 1993). Additionally, the focus on manually coded English and its syntactic form in deaf classrooms prevents access to the acquisition of ASL as a mediational tool to develop abstract concepts and problem-solving ability. So many deaf students remain illiterate in English because the systematic denial of their primary language shuts out the most effective means for teaching them a second language (Lane, 1992).

Deaf and Hearing Bilingualism.

The majority of bilingual children acquire their first language in the home from their parents and family members. However, deaf children from hearing parents who do not sign

acquire their knowledge of ASL in residential schools or deaf classrooms from either deaf peers or deaf adults. This often has occurred outside of the classroom milieu where the instructional emphasis has been on learning the syntactical structure of English. In spite of the change in location of acquisition, the issues remain the same: effective communication within social interactions forms the basis for language competence and cognitive development; and competence in a natural, primary language must be acquired before it can be learned in a second language.

Many bilingual education programs are driven by the transitional paradigm wherein content area instruction in the primary language gives way to increasing instruction in the second language. At some point, usually between grades two through four, instruction in the primary language is completely abandoned as the student is transitioned into English. However, deaf bilingualism is not a transitional situation. Because of the deaf child's inability to process language auditorally, they will remain bilingual (ASL and English) for their entire lives. And certain skills in the second, majority language (i.e., speaking) may never be fully acquired by deaf individuals (Grosjean, 1992).

Additionally, as Ramsey (1993) noted, bilingualism, when considered within the context of deafness, demonstrates some peculiar features. English language production, for the deaf, is usually confined to print functions. For face-

to-face communicative interactions, the deaf privilege ASL. Hearing bilingual persons, in contrast, access English for both written and oral functions.

However, the goals in a deaf bilingual education program remain the same as with other minority languages. The primary goal is that the deaf students be able to achieve academically at a comparable level with that of their hearing peers. Another goal is that deaf children gain fluency in English (at least in its written form) while developing proficiency in ASL. Still a third goal would allow deaf students to utilize their primary signed language both outside and within the classroom as a tool for cognitive development (Strong, 1991).

Metalinguistic Development.

Many deaf persons do not consider themselves bilingual (Grosjean, 1992) - unaware that their varying communicative interactions within the deaf and hearing cultures require a functional knowledge of more than one language.

Metalinguistic skills (i.e., understanding of how different languages are structured and function) which assists bilingual persons in controlling their linguistic processes are necessary tools for deaf children to successfully negotiate both ASL and English. This meta-linguistic knowledge is part of their language tool kit which enables them to recognize and successfully employ the linguistic forms which accompany specific sociocultural interactions.

Bialystock (1987a) found that hearing bilingual children have a superior ability in metalinguistic processing, and Neuroth-Gimbrone & Logiodice (1992) found that over time, the metalinguistic ability of their deaf students resulted in increased reading comprehension in English. Teachers need to provide opportunities for metalinguistic development. If deaf children are to be successful in both English and ASL, they must recognize that they are utilizing two different languages. As Heath (1986, p. 156) noted:

The greater the opportunities for experiencing language uses across a variety of contexts, the greater the language repertoire the children of the language minority community will learn ... knowing the ways of other groups offers the possibility of expanding the abilities of all groups to create and learn new information and to adjust and to adapt to new circumstances ... the range of language uses within classrooms is amazingly small ... current research strongly suggests that the greater the extent to which the school can foster metalinguistic awareness ... the greater the chance that children will transfer any language-related instruction beyond the immediate instructional setting.

Bilingual Educational Policy and the Deaf.

Language policy should facilitate cognitive development and academic success in all children. However, policy, when grounded solely in sociocultural beliefs and opinions can be misused to oppress, disenfranchise and discriminate against a given language minority group (Strong, 1991). The virtual absence of deaf adults in the classroom as linguistic and cultural role models is a reflection of the larger society's perception of deafness as a disability, and signed languages as less desirable than spoken English. Woodward, Allen & Schildroth (1988) reported that elementary school hearing impaired children are almost exclusively exposed to English in the classroom, and that the majority of the teachers for these children used simultaneous oral and manual communication. Less than three percent of the 609 teachers surveyed by the California Association of the Deaf (1985) which Woodward cited were deaf women and only two were deaf males. However, Drasgow (1993) stressed the importance of exposing deaf children to deaf role models which would enable them to acquire ASL in a natural manner through real communicative interactions, rather than in formal, didactic language instructional contexts. Deaf education professionals need to acknowledge that manual communication through a natural language such as ASL is the best method to educate deaf children. This would allow deaf adults to become once again an integral part of

deaf education, thereby removing the monopoly hearing adults have maintained for so long (Lane, 1992). And Cortez (1986) suggested that schools incorporate sociocultural knowledge of their students' backgrounds as a means to make teaching language minority students more successful.

In 1988, the Commission on Education of the Deaf recommended that the Department of Education take positive action to encourage bilingual practices under the Bilingual Education Act that would enhance the quality of education received by deaf children whose primary language is ASL. The right of deaf children to have access to a language they can acquire and develop competence in has never been adequately addressed by policy makers (Supalla, 1992). While ASL is permissible within Total Communication programs, it tends to be the last resort of hearing teachers who are unable to make the deaf child understand in any other way. The low incidence of deaf teachers, coupled with educational policy, accounts for this situation (Strong, 1988). Competence in ASL often is not tapped for instructional purposes nor for learning English as a second language (Supalla, 1992).

At present, deaf children whose native language is ASL do not qualify under the Bilingual Education Act. In order to qualify for inclusion under the Act, children must have limited English proficiency and possess a native language other than English. Strong (1991) purported that those

children born into deaf families who spontaneously sign ASL with them should qualify since their native language is ASL, and that deaf children born into hearing families who do not sign with them have sufficient difficulty in reading, writing and speaking English to also qualify. However, Supalla (1992) maintained that the Bilingual Education Act is not completely applicable to the deaf educational context and that it is highly unlikely that legislation will be altered to include ASL. Bowe (1992) also questioned the wisdom of removing the label of "disabled" to the deaf since it would jeopardize funding for the deaf under state and federal special education legislation, and that, while the notion of ASL as a native language is attractive, rushing ahead without understanding could result in disappointment.

While a change in legislation regarding ASL as a native language may not be imminent or perhaps desirable, providing a bilingual framework for deaf education which would utilize ASL as the language of instruction could be a reasonable goal. The learning of English as a second language for literary functions would then form part of the deaf bilingual education framework. However, before such a framework could succeed, policy makers at the various federal, state and local levels, in formulating educational policy would need to elevate ASL to an acceptable level of prestige in practice and not just in theory. This would open the door to the use of ASL as the predominant vehicle

of instruction in deaf classrooms. Signed language and deaf culture would no longer be relegated to a caste-like minority status (Ogbu & Matute-Bianchi, 1986). The paradigm of linguistic deprivation and oppression which has been entrenched in deaf education for so long would give way to a sociocultural structural transformation which would allow deaf people to become "beings for themselves" (Freire, 1972, p. 54). Much as they were in the last century, deaf adults could once again become an integral part of the socioeducational context for deaf children. And hearing parents, no longer trapped in societal misperceptions of deafness as a deficit or source of shame, would be liberated and empowered to learn and utilize signed language in the home. Cognitive development in young deaf children would no longer be disrupted as they would have access to the sociocultural tools required for the ontogenesis of self-regulation and abstract genuine concepts.

Summary

In spite of the return of manual communication in deaf classrooms, as well as the enactment of several federal laws intended to improve special education and/or protect the civil rights of the deaf, the academic achievement of deaf students still lags behind that of their hearing peers. Mainstreaming, within the concept of Least Restrictive Environment, has routinely been practiced at public school settings for the deaf. This has resulted in the placement

of deaf students in the regular education classroom with hearing teachers and peers who cannot effectively communicate with the mainstreamed deaf child, thus ignoring fundamental issues of language as a symbolic and cultural system which facilitates cognitive development. Legislation has assumed that the education of the deaf and other handicapped children is a socialization process, rather than an academic one. Policy setting, within the legislative context, would appear to be opinion driven. Research has played little or no role in shaping special education policy.

The majority of deaf children (over 90 percent) come from hearing parents who do not sign or who cannot sign proficiently enough to provide spontaneous language acquisition and cognitive development. This often results in a linguistic and cognitive deficit which the deaf child struggles to overcome within the socioeducational setting. However, few hearing teachers of the deaf, which comprise the majority of adults in the deaf classroom, are fluent enough in American Sign Language to provide linguistic and cultural role models. Additionally, the focus of instruction in deaf classrooms has been on coded forms of English accompanied by speech which often has resulted in diminished comprehension.

Cognitive development does not occur in isolation; but rather, in socialized communicative interactions. A mutual

symbolic system (i.e., language) forms the basis for those interactions and the subsequent cognitive development. For the deaf, American Sign Language is the semiotic tool which they privilege within sociocultural interactions and which facilitates cognitive development. However, in deaf classrooms where the focus has been on coded English, and where ASL is either excluded or not proficiently employed, the result has been diminished comprehension and/or cognitive development.

Deaf persons who sign and use English on a daily basis can be considered as bilingual. However, minority languages have had only a marginal place in the school setting, in spite of the fact that children require a comprehensive understanding and ability in their first language before they can successfully employ a second language. Deaf children who must acquire a signed symbolic system before learning English in its written form are no exception. However, federal legislation does not recognize ASL as a minority language, thereby largely excluding deaf children from the benefit of bilingual education.

Chapter 3

Design and Methodology

Overview

This study will investigate the socioeducational experiences of one deaf student at the two sites he attended during the course of the investigation. The Deaf and Hard of Hearing program was run by the lead educational agency - the County Office of Education - in conjunction with the two local school districts where the programs were housed. The study will also examine deaf educational policy at the federal, state, and local level and how said policy is interpreted into classroom organization and practice at both sites.

The questions which guide the research will center on educational policy; the focal student's socioeducational experiences within the context of language use and cognitive development at both sites; the expertise and expectations of the teachers and administrators who either work at, or work within a supervisory capacity for both sites; and how the implementation of educational policy affects student outcomes in language and learning. The guiding questions will be:

I. Educational Policy

- a. What is the educational policy at the federal, state and local level?

- b. How is said policy implemented/interpreted at the local site?

II. Language Use and Cognitive Development

- a. Which signed language and forms of coded English are used in the classroom?
- b. How does the use of these languages and codes enhance or inhibit learning within the socioeducational experiences of the focal student?

III. Teacher/Administrator Expertise and Expectations

- a. What is the teacher/administrator knowledge of the relationship between language and learning within a deaf context?
- b. What is the teacher expertise in signed language and coded English?
- c. What is the teacher/administrator knowledge regarding bilingualism, language acquisition and language learning?

Data Collection

Data collection will include an analysis of documents regarding educational policy at the federal, state and local levels and how said policy is interpreted and practiced at both sites selected for the study. Interviews will be conducted with the teachers and administrators at both sites, as well as with the supervisory administrator at the county level who is responsible for the deaf and hard-of-

hearing program; and with the administrators at the corresponding school districts. The questions selected for the interviews will explore teacher and administrator expertise and expectations for language and learning with deaf children, as well as knowledge of bilingual theories and their possible application within a deaf classroom. Classroom observations of language use and socioeducational interactions among peers, teachers and interpreters will be utilized as part of the data collection in order to understand language use and its relationship to the deaf focal student's successes or failures within the socioeducational context.

Educational Policy

Federal Level.

Within the numerous educational codes and regulations at the federal level, three major pieces of legislation form the impetus for guidance and implementation of educational policy specifically with regard to the deaf and hard-of-hearing. The first of these, The Education of the Handicapped Act (PL94-142) was enacted in 1975. PL94-142 guaranteed a free, appropriate education (FAPE) to all handicapped students. The law required local educational agencies, such as school districts and counties, to formulate an individualized educational plan (IEP) for each handicapped student which would outline specific goals and objectives for the student. The IEP must include the

specific services which will be provided, as well as an assessment of the child's current educational level. The plan further requires the participation of parents, the classroom teacher, as well as district and/or county administrative representatives and auxiliary service providers (e.g., school psychologist) at an annual IEP meeting for the handicapped student. In formulating the IEP, districts and counties are expected to address the least restrictive environment (LRE) for the student. The LRE concept is an attempt to remove the educational barriers that deny the handicapped access to the curriculum and which will provide maximum opportunity for integration with their non-disabled peers. Historically, this has been interpreted as mainstreaming the handicapped student as much as possible into the regular education classroom.

In 1990, the Education of the Handicapped Act was amended as the Individuals with Disabilities Act (IDEA) (PL101-476), and this comprises the second major piece of legislation affecting deaf and hard of hearing students. This amendment, with regard to LRE, "Denotes a clear preference by Congress for inclusion of handicapped children in classes with other children," and "Imposes affirmative obligations on school districts to consider placing disabled children in regular classroom settings, with the use of supplementary aids and services, before exploring other alternative placements." (Individuals with Disabilities Act

of 1990, Note 45). The amendment further states that the determination that while a disabled child might make better progress in a special education classroom, consideration for placement in the regular classroom should take precedence in the placement of the disabled child in order to develop social and communication skills with non-disabled peers.

The IDEA does not require states to provide services to the disabled which would maximize each child's potential or which would achieve strict equality of opportunity or services; but rather, one that is appropriate to the child. However, there are no clear guidelines within the IDEA which identify what constitutes appropriate placement. The IDEA does require states to provide, "Personalized instruction with sufficient support services to permit the child to benefit educationally from instruction," and that the "Educational benefits from individualized educational plan (IEP) for handicapped child are adequate." (Individuals with Disabilities Act of 1990, Note 34).

With regard to language use in the classroom, neither PL94-142 nor the IDEA indicate which signed language or coded system of English should be utilized. However, Note 53 of the IDEA states that school districts may use a modified version of Signing Exact English (SEE), as well as strict SEE systems without violating the rights of students as intended by the law.

In 1992, the Secretary of Education, Lamar Alexander, issued a Deaf Students Education Services Policy Guidance, which attempted to address concerns expressed in the report issued by the Commission on Deaf Education (1988), regarding the least restrictive environment and the most appropriate placement for the deaf. The Policy Guidance, recognizing that, "Communication is the area most hampered between a deaf child and his or her hearing peers and teachers," stated that, "Any setting, including a regular classroom, that prevents a child who is deaf from receiving an appropriate education that meets his or her needs, including communication needs, is not the LRE for that individual child" (Federal Register 49275, 1992). The Policy Guidance further recommended that local educational agencies, in preparing an IEP for a deaf child, must take into consideration the communication needs, as well as the social, emotional and cultural needs and opportunities for peer interaction prior to placement in order to guarantee an appropriate education for that child. This Policy Guidance marked the first time that the federal government recognized that the concept of a free, appropriate education (FAPE) should take precedence in deciding the LRE for a deaf child.

The third major piece of legislation which affects policy for the deaf and hard of hearing is the Americans with Disabilities Act of 1990 (ADA) (PL101-336). The purpose of the ADA was to, "Establish a clear and comprehensive

prohibition of discrimination on the basis of disability," (Americans with Disabilities Act of 1990). President Bush, who signed the law into effect on July 26, 1990, stated that the ADA was an historical benchmark and milestone since it was the first comprehensive civil rights law specifically for the disabled. At the time of the Act, Congress found that "Discrimination against individuals with disabilities persists in such critical areas as ... education ... communication ... and access to public services," and that the message of the ADA was that, "The 43 million with disabilities are full fledged citizens ... entitled to legal protection to ensure equal opportunity and access to mainstream American life," (American with Disabilities Act of 1990).

The Act requires that services provided by public agencies, including educational agencies provide equal opportunity which will, "Gain the same result, benefit or reach same level of achievement provided to others," and that, "Communication with disabled are as effective as communication with others" (Americans with Disabilities Act of 1990). The law further states that all benefits or services provided by public agencies to the disabled be equal to that afforded to the non-disabled.

A fourth piece of federal legislation which addresses the education of language minority students, but which historically has excluded native users of ASL, is the

Bilingual Education Act of 1968 (BEA), Title VII of the Elementary and Secondary Education Act of 1965 (ESEA). This Act attempted to address the educational needs of students with limited English proficiency. Access to the core curriculum was not being achieved by language minority students because of the language barrier between their native language and English. The BEA (1968) defines limited English proficiency as,

Individuals ... whose native language is a language other than English ... who come from environments where a language other than English is dominant; ... where a language other than English has had a significant impact on their level of English language proficiency; and who, by reason thereof, have sufficient difficulty speaking, reading, writing, or understanding the English language to deny such individuals the opportunity to learn successfully in classrooms where the language of instruction is English.

The small number of native ASL users (i.e., deaf children born to deaf parents) has been considered insufficient to be included in the Act's definition of limited English proficient students, and that the Bilingual Education Act was never intended to include native ASL signers or the deaf (Strong, 1991).

State Level.

The California Educational Code defines the deaf and hard of hearing as part of their low incidence special education population. This is defined as those disabilities which have an incident rate of less than one percent of the total statewide enrollment in grades kindergarten through twelfth. As of 1992, there were in excess of 20,000 students who fell into this category (California Assembly Resolution 55, 1992). Other examples of handicaps which fall into this category are the deaf-blind and the orthopedically handicapped.

Legislation guiding educational policy at the state level mirrors much of the federal laws related to special education. The California State Education Code also requires the development of an IEP which includes the student's present level of academic performance, annual goals, specific special educational instruction, and the extent of participation in regular education programs (§56345). The law further states that the IEP team should consider related services and program options that provide equal opportunity for communication access.

With regard to LRE, the California Education Code states that the determination of least restrictive environment for a deaf student should be determined on the legislative findings (e.g., communication access). However the Education Code specifically states that, "Each public

agency shall ensure that each individual with exceptional needs participates in those activities with non-disabled pupils to the maximum extent appropriate to the needs of the individual" (§56364.1). Currently, the State Board of Education is drafting a policy statement on LRE whose intent is to remove prior limitations to appropriate placement for deaf students and which will base the LRE on each individual's needs.

The California Education Code mirrors the ADA where educational facilities are concerned. New school facilities where students with exceptional needs will be placed are required to locate them on the site with the intent to maximize interaction with other non-disabled pupils (§17747.5).

State law requires that instruction for the deaf and hard of hearing be provided by individuals who are competent in providing services to the hearing impaired, who have had training and/or experience, and who have proficient communication skills to educate them (§30511.7). Services designated under this statute include instruction in oral, sign and written language, and the adaptation of curriculae and methods which facilitate learning. The statute also allows for the use of specially trained aides to assist in the implementation of the IEP (§30511.8).

The California State Department of Education's Program Guidelines for Hearing Impaired Individuals (1986) states

that school districts often establish programs and services based on the assumption that all children enter school with basic language skills, in spite of the fact that many deaf children lack a basic communicative language or cognitive skills. Of primary importance to deaf children is a communication system that allows for effective social interaction as well as the development of ideas and concepts. Integral to the delivery of such services are professionals that have been trained to work with the deaf and hard of hearing. The Program Guidelines specifically state that when a hearing impaired student is placed in a regular education classroom, that, "A regular education teacher ... should be given inservice training prior to the placement of the student in the regular classroom," (1986, p. 12). When discussing least restrictive environment for deaf students, the Program Guidelines suggest that the environment, "Should optimize opportunities for communication, and for social, emotional, and academic growth and development of the hearing impaired student," (1986, p. 20).

The California Department of Education's Strategic Implementation Plan for Regionalization, revised in 1994, was developed with the low incidence disabled student in mind. The Plan recognized that the State's Master Plan for Special Education did not fully address providing appropriate programs for those students with low incidence

disabilities. The Plan, in analyzing the current delivery system for hearing impaired students, found that there was a need to provide specialized inservice for teacher aides, administrators and support personnel; a need for proper training of teachers; a need to address access to the core curriculum; and, a need to evaluate program effectiveness which focus on student outcomes.

The State's Regionalization Plan is an effort to provide efficient and cost-effective services to students with low incidence disabilities. Some of the key elements in regionalized services include: improved collaboration among local education agencies; preservice training for staff, administrators and parents; appropriate class sizes and caseloads; the development of standardized student outcomes; increase personnel with experience and expertise in low incidence disabilities; the development of parent handbooks; and, support legislation for low incidence early education infant programs.

In 1992, the California Assembly, in their Resolution 55, found that the administrators of low incidence programs need to be more knowledgeable than they currently are; that assessments conducted on low incidence pupils often are not comprehensive nor are conducted by appropriately trained personnel; that there were inappropriate caseloads and class sizes in some programs; and, that there was need to address access to the core curriculum for low incidence pupils.

A response to the identification of these programmatic difficulties has been the development of the California Deaf Education Coalition. The Coalition has been working with the California Department of Education to develop standards for the deaf and hard of hearing programs in the state. Some of the Coalition's recommendations include; that administrators need to be knowledgeable in the area of deaf education; that language development should be a primary goal; that communication access to peers and teachers should also be a primary goal; that proficiency in ASL for teachers and aides is imperative; and, that deaf adult role models should be part of the classroom environment.

Additionally, in 1994, the California Assembly passed the Deaf and Hard of Hearing Education Rights Bill (AB 1836). The bill recognized that the communication needs of the deaf must be central in determining the program and/or placement of the student in the least restrictive environment, thus echoing the Federal Guidance of Policy Statement issued by Secretary of Education Lamar Alexander in 1992. The language of the bill was incorporated into the California Education Code, which states, "Deafness involves the most basic of human needs - the ability to communicate" (\$56000.5).

Local Level - Desert View County.

The Desert View County (all names at the local level have been changed), along with several other local school

districts in the area comprise the Special Education Local Plan Area (SELPA). The SELPA acts as the local governing board for all special education programs within a specific geographic location (Please see Appendix A). Each geographic area, depending upon its size and student population, may involve a single district SELPA, or a cooperative, multi-district SELPA. Some of the main responsibilities of a given SELPA are to determine the number of personnel at each site; to determine student caseloads and class sizes; and to disburse the state's funds to local education agencies within the SELPA jurisdiction.

Of the myriad number of pages which comprise the Desert View County's policy handbook, only two pages were devoted to instruction with regard to the special education population within the county. In the handbook, the County Board of Education recognized that disabled students had a right to appropriate individual instruction and that the primary responsibility of the County Board was to apply its resources which would establish programs which provide for the optimum development of each student.

When discussing the least restrictive environment, the handbook indicated that each student's LRE be appropriate to their individual needs, and that the LRE will enable them to achieve their potential for independence. The environmental and educational plan formulated for an individual IEP is expected to provide achievement in a student's sense of

personal worth. The Board further stated that a primary goal in selecting the LRE for a disabled student should be to promote acceptance and understanding between the handicapped and the non-handicapped student. Additionally, as part of the IEP, appropriate, comprehensive and ongoing assessment should provide functional information to help determine the LRE for each individual student.

Local Level - Poppy Hill School District.

The Poppy Hill School District comprises part of the local SELPA. The Board, in its policy handbook, indicated that each individual with exceptional needs has a right to participate in a free, appropriate environment; and that, those students with exceptional needs also have a right to the appropriate opportunity to meet their individual unique needs.

The Board requires each school within the Poppy Hill District to develop an individual school plan of instructional services which will meet the needs of all students, including language minority students as well as exceptional needs students. As part of the plan, the school is expected to examine their own patterns of educational organization to determine which of these patterns best meet the needs of their students.

One of the primary purposes of education, as stated in the handbook, is to provide quality programs which will assist students in becoming effective citizens and that each

student is entitled to opportunities for optimal development. Staff development for teachers and staff participating in special education programs are considered an integral part of a quality program. The Board further indicated that schools can maximize the learning conditions within a site when it establishes a climate that affirms worth and diversity. The Poppy Hill School District Board stated the expectation that all students will perform at high levels of learning.

Local Level - Arroyo Seco School District.

The Board Policy of the Arroyo Seco School District expressed the commitment to provide students with a quality education. This commitment includes an environment which emphasizes each student's dignity, and one which provides opportunities for academic excellence to achieve their fullest potential.

With regard to their exceptional needs students, the Arroyo Seco Board Policy stated that each exceptional needs student shall be educated in the least restrictive environment, which may include placement within the regular education classroom, as well as special education classes. Prior to placement in a regular education class, the mainstream teacher should receive copies of the student's IEP, and should have an opportunity to attend a planning meeting prior to the enrollment of that student in the classroom. The Board Policy further stated that the

placement of exceptional needs students in any regular education classroom shall be appropriate for the regular education teacher and the regular education children in the program.

As with the Poppy Hill School District, each school within the Arroyo Seco School District is expected to formulate a school plan which must comply with federal, state and local laws, regulations and guidelines. This said school plan will be assessed according to set criteria established by the State Board of Education for all school districts in the state.

Description of Focal Student

The subject for this study, Ruben, is an eight-year old male who was diagnosed with a severe hearing loss (i.e., a hearing threshold of 70-90 decibels) at one year of age. Within the past two years, the subject's hearing loss has deteriorated to a profound hearing loss (i.e., a hearing threshold of greater than 90 decibels). Ruben's latest audiogram indicated a hearing threshold of 115-120 decibels in both ears.

At the present time, Ruben is unaided. That is, he does not wear hearing aides. Previously, Ruben had three different sets of hearing aides - all of which he misplaced and which were subsequently lost. His parents have indicated that at the present time they are financially unable to purchase an additional set. Even when auditorally

aided, Ruben misses virtually all of the range of speech sounds. However, a recent speech and language evaluation conducted by a speech pathologist who specializes in deaf children indicated that Ruben, even though unaided, shows potential in developing speech.

Ruben also suffers from multiple congenital medical problems. These include a malformed heart valve; a form of asthma referred to as reactive airway disease; and a weak immune system which renders Ruben susceptible to bronchial infections and pneumonia. The heart problem has not required surgical intervention to-date, but Ruben's asthma and frequent bouts with pneumonia often cause him to miss school. Additionally, Ruben suffers from neurological problems in the form of seizures and attention deficit problems. Recently, Ruben was referred for academic testing to rule out the possibility of a learning disability. While Ruben is chronologically at a third grade level, his developmental level in academics approximates a first grade level. However, upon completion of the testing, the Desert View County psychologist found no evidence of a learning disability. At present, Ruben is medicated for the asthma and neurological conditions.

Both of the subject's parents and his three older female half-siblings are hearing. Ruben's mother, who is also the researcher in this study, is the most fluent signer within the family unit. Upon learning of Ruben's hearing

loss at one year of age, the mother immediately began to communicate in signed language, utilizing signs self-taught from a book. Ruben's mother has subsequently taken classes in ASL at the local college. Additionally, Ruben's mother has developed contacts within the local deaf community. Both she and Ruben attend monthly deaf events. Ruben frequently has spent time with deaf families or has had deaf visitors and peers to the home in order to facilitate language acquisition and to participate in deaf culture.

Ruben's father and half-siblings are limited in their signing ability. Much of their communicative interactions with the subject are within Ramsey's (1993) caretaker domain (e.g., "Stop," "No," "Good," etc.). There is limited communication in full ASL or signed English sentences. This language barrier between Ruben and his family members has resulted in the development of an interpreter role for the mother on behalf of the other family members who frequently are unable to understand Ruben's signs or are unable to express themselves in sign language to the subject.

Ruben began to be serviced educationally when he was one and one-half years of age. At that time, an itinerant teacher from the local school district where the family lived would come to the house twice a week to teach Ruben signed language. The itinerant teacher also worked with Ruben on developing concepts through play. At two and one-half years of age, Ruben began attending a special preschool

for the deaf once a week, in addition to his weekly visits from the itinerant teacher. This was Ruben's first sociocultural experiences with other deaf children. All of the adults involved in the preschool program were hearing persons fluent in signed language. The program was organized to include parental participation during structured class time, as well as to provide parent inservices and support groups during nap time. Ruben's mother frequently attended the program with him. At three years of age, Ruben began attending a deaf and hard of hearing primary program at a local regular education campus. Ruben remained in this program until the end of kindergarten when his family moved to the present location within the Poppy Hill School District.

During the course of this study, Ruben attended first grade through the deaf and hard of hearing program offered by Desert View County at several sites within the Poppy Hill School District. He then attended second and third grade at a single site within the Arroyo Seco District, which is also part of the Desert View County program.

Site Selection

The sites selected for this study were both deaf and hard of hearing (DHH) programs run by the Desert View County, in conjunction with two local school districts: the Poppy Hill School District and the Arroyo Seco School District. Both the Poppy Hill and the Arroyo Seco districts

are located within the large geographical boundaries of Desert View County. The two school districts contain the largest student populations within the jurisdiction of the local SELPA. All DHH students who reside in the districts which comprise the local SELPA either attend the program located within the Poppy Hill School District or attend the program housed at the Arroyo Seco School District. Attendance is determined by the students home address and its proximity to one or the other site.

The central office for Desert View County, where Mrs. Stern, the Area Administrator for the DHH program is located at, is separated from the two sites by some 80 miles. Each of the DHH sites are locally supervised by two separate County Area Principals (Please see Appendix B). Mrs. Wynne was the County Area Principal of the program within the Poppy Hill School District at the time of the study. She worked in conjunction with Mr. Connor from the Poppy Hill School District. Mr. Connor was the Superintendent of Pupil Personnel Services for the Poppy Hill School District and the supervision of special education programs was part of his responsibility. Mrs. Gardner was the County Area Principal of the program within the Arroyo Seco School District. She worked closely with Mr. James, the Director of Pupil Personnel Services for the Arroyo Seco School District, who was the district liaison person for the program. Both Desert View Area Principals were responsible

for all other special education programs within the two districts, in addition to the DHH programs.

The initial site for the study, Panguitch Elementary School, was located within the Poppy Hill School District. It was a regular education campus housing two of the three Desert View County DHH programs for the area. Panguitch Elementary School was the third location for the DHH program within a time frame of less than three years. At no time during his enrollment in the DHH program through Desert View did Ruben spend more than one year at a given school campus. Upon enrollment, he spent only three months at the initial campus before the program was transferred to a second temporary campus. However, the Poppy Hill School District Administration indicated that Panguitch Elementary had been designated the permanent site for the DHH program.

The second site for the study, Vista del Lago School, was located within the Arroyo Seco School District. This was also a regular education campus housing the third DHH program. Vista del Lago School has been the only site for the DHH program since its inception there four years ago. The additional DHH program was established within the city of Arroyo Seco due to overcrowding in the program at Poppy Hill. It was expected that residents of Poppy Hill would attend the program there, and that residents of Arroyo Seco would attend the new program at Vista del Lago School.

Both sites were included for this study because Ruben, the subject, attended the DHH program within Poppy Hill and Arroyo Seco School Districts. Ruben is a resident of Poppy Hill and initially attended the DHH program at the various campuses within the school district's boundaries. During the course of this study, he was a student in the first grade at Panguitch Elementary School. However, Ruben was later transferred to the DHH program in the city of Arroyo Seco at the mother's request. During the course of the study, Ruben was a student in the second and third grade at Vista del Lago School.

Site Description - Panguitch Elementary School

Panguitch Elementary School was a regular education campus serving 760 students in grades kindergarten through sixth. The school was located on the edge of a fairly new housing tract within the limits of the city of Poppy Hill, a rural-suburban community. The city of Poppy Hill comprises one of the fastest growing communities in the nation and the district has had difficulty in keeping up with the burgeoning population.

Panguitch Elementary had four classrooms each for grades kindergarten through fifth; and three sixth grade classrooms. The school also housed the two DHH programs, as well as a third special education class run by Desert View County. One of the DHH classrooms was a primary level setting comprised of students from the preschool level

through second grade. During the course of the study, Ruben was a first grade student in the primary level classroom with Mrs. Burke, who was a hearing teacher employed with Desert View to work in the DHH classroom. The only deaf adult in the entire program at Panguitch was an aide, Mrs. Randolph, who had been deafened later in life. There were a total of nine students in this DHH classroom.

The second DHH classroom was a middle level setting comprised of students from the third through eighth grade level. Desert View County had no junior high school DHH program; hence, students went from this elementary setting straight to a high school setting. There were a total of thirteen students in this classroom. The teacher for the middle level classroom, a Mrs. Porter, was also a hearing teacher employed by Desert View County.

During the time Ruben attended the primary level DHH program at Panguitch, the permanent school building was under construction. During the construction phase, all student classrooms were housed in temporary trailers located on the site. These classroom trailers were separated from the main building under construction by a continuous safety fence.

Just prior to the end of the school year, construction was completed on the main school building. Poppy Hill School District indicated that an alternative learning program would be moved into the vacated temporary classroom

trailers, and that this program would remain separated from Panguitch by the safety fence. However, under-projection of enrollment at the time of site planning resulted in insufficient space within the new building for all of the students at the school. This required that some classrooms would remain housed in the temporary trailers on the other side of the fence where the alternative learning program would be relocated. The parents of the DHH students expected them to be placed in classrooms in the new building since Panguitch had been designated as the permanent site for the DHH program.

At a meeting between the Poppy Hill School District and the parents of the students in the DHH program, the district indicated that the DHH classrooms, as well as the third special education program had been selected to remain in the temporary trailers. District personnel assured parents that even though their children's classrooms would be physically part of the alternative education program, every attempt would be made to "include" them as part of the school on the other side of the fence. The parents of the DHH students strongly objected to this decision to isolate the special education programs from the mainstream regular education classrooms, citing their desire for the DHH children to be fully included with the non-disabled students on the main campus. The parents indicated their frustration with the Administration's transient approach to housing the

DHH program within the District and the fact that at each of the previous sites, the DHH program had been housed in trailers, separated from the main campus by a fence, thereby excluding the DHH students from real inclusion.

An initial compromise between the district and the parents was reached. It was agreed that one regular education sixth grade class, as well as the middle level DHH class and the third special education class would remain in the trailers while the primary level DHH class would be placed in the main building in close proximity to the other primary grade classrooms.

However, this initial compromise was never fully realized. The design of the new building permitted movement of the classroom walls which allowed for the creation of other rooms within the building as needed. The principal of Panguitch School, Mr. O'Hara, utilized this feature to make all of the classrooms in the main building smaller, thereby creating sufficient space for one more classroom to be placed in the new building. The regular education sixth grade class was chosen to be moved into the building, leaving the two special education classes alone on the alternative education campus. Additionally, Mrs. Burke, the primary level DHH teacher, upon moving into the kindergarten wing, was informed by Mr. O'Hara, the principal of Panguitch, that she could not be allowed to occupy a full classroom. A kindergarten room was partitioned off with a

rolling wall and the primary level DHH classroom was moved into this area, which comprised less than one-half of a room. The remaining half of the partitioned classroom initially was used for band practice. However, numerous complaints on the part of Mrs. Burke resulted in the termination of band practice on the other side of the room, and the subsequent placement of a regular education kindergarten classroom there.

Language Use and Development - Panguitch Elementary School.

Mrs. Burke, the hearing teacher in the primary DHH classroom at Panguitch has had over thirty years experience in special education. When Mrs. Burke first began teaching deaf students in the 1960's, an oralist philosophy dictated classroom practices. When interviewed, she indicated her frustration in the lack of communication and the difficulty teaching her students while they were forced to "Sit on their hands," and her subsequent relief when the shift to Total Communication in the 1970's allowed her deaf students to use manual communication. When Mrs. Burke was forced to rely solely on oral communication, she indicated that her students, "Struggled because they were not getting the concepts."

Mrs. Burke's main resources for learning signed language were various books which she purchased over the years. She has had no formal training in signed language.

Mrs. Burke indicated that her lack of skill in signing often resulted in a dependence upon her interpreters and aides to help her communicate with the students in her room.

However, she did not consider this much of an obstacle in her interactions with her deaf students, nor did she feel this diminished the students' cognitive development, stating that, "It's communication as long as I can communicate."

During the interview with her, Mrs. Burke indicated that the Desert View County policy and/or philosophy with regard to language development put an emphasis on Signing Exact English (SEE), although she did state the need to rely frequently on ASL for conceptual development, since her students could not get the concepts through SEE. However, when teaching reading, Mrs. Burke stated that, "A straight English approach" was called for. She felt that language development for the deaf students was a primary goal as it, "Will overlap into the other content areas," and that she expected each student to, "Be on target, grade level ... as close to the hearing child as possible."

For literacy instruction, Mrs. Burke utilized a reading series which has been specifically designed with the deaf student in mind. Lack of actual textbooks within the reading series, however, forced her to rely on photocopies of the books to teach her deaf students. Desert View County cited lack of funds as the reason for not purchasing actual textbooks for the program. And although Poppy Hill School

District offered Mrs. Burke and the other DHH teacher at Panguitch to utilize their reading series, Mrs. Burke preferred the photocopies, stating that the series was easier to use with the deaf students.

During informal classroom observations, Mrs. Burke did have to ask her aides and interpreters to clarify concepts or to help her explain to the students what she was trying to express. However, Mrs. Burke was often able to communicate directly with her students without the intervention of the other adults in the class.

The aides and interpreters in this classroom had been trained in ASL, but observations of language use in the classroom indicated more of a pidgin form of ASL that more closely followed the syntax of English. Also, many signs utilized in the classroom by all of the adults were Signing Exact English (SEE) signs as opposed to actual ASL signs (e.g., putting two "B" hands together to sign the word "bus," rather than fingerspelling /b-u-s/ which is how the word is expressed in ASL). Also, very little fingerspelling instruction took place outside the context of actual spelling instruction.

Mrs. Burke's philosophy on language use and the resulting classroom practices were somewhat in contrast with statements made by her principal, Mrs. Wynne, during an interview with her. Mrs. Wynne also stated that with regard to attitudes, "Expectations are the same as they would be

for the quote, unquote, normal population ... the work that is presented is at grade level," and that, "Vocabulary building, particularly in the younger grades," was a critical part of building a language base in deaf children. She indicated her frustration with the communication deficit that many of the DHH students in her program suffer from, saying that for many of these students whose parents do not sign, "Communication stops when they get off the bus."

However, when discussing language use in the classroom, Mrs. Wynne indicated a philosophical belief in the need to utilize ASL for cognitive development. She stated that although the Desert View County program uses a Total Communication approach, "ASL, for all intents and purposes is the native language of the deaf." When questioned about language use specifically in the Desert View County program, Mrs. Wynne insisted that no SEE was used in the primary level classroom, citing again the use of ASL by the deaf for conceptual learning and communication. She stated that, "They conceptualize what's going on in ASL. Everything represents a concept rather than an exact word." When questioned about developing metalinguistic skills in deaf children to help them distinguish between the functions of ASL and SEE, Mrs. Wynne indicated that this would just confuse the deaf students. However, she did indicate that deaf students were not precluded from, "Taking a piece of literature which is exact English on paper and extracting

the information and having the comprehension."

When questioned about the need to include native ASL signers as language models in the classroom for those deaf children who are not native signers themselves, Mrs. Wynne stated that the hearing interpreters were proficient enough in ASL to provide correct language modeling. She did not feel that there was a need to bring in additional deaf adults into the program, also citing the fact that one of the aides in Mrs. Burke's class was a deaf adult.

Mrs. Stern, the Area Administrator in the Desert View County Offices, 80 miles to the south, expressed her concern with the lack of consistency in language use within the DHH programs, especially since so many deaf children lack a cognitive base. And while Mrs. Stern indicated that there was no official policy with regard to language use in the DHH classrooms, she stated that the two primary systems which were in use were SEE and ASL. Mrs. Stern said she was aware that, "Some teachers ... are not as fluent in one or the other as they should be," but that Desert View County attempted to pair teachers together so that students would not be so disadvantaged. She also stated that she wanted, "The pupils with the highest potential to be matched with teachers with the highest skills."

None of the administrators at the Poppy Hill School District level, when interviewed, knew which language was in use in the DHH classrooms at Panguitch. Mr. Connor, the

Assistant Superintendent of Pupil Personnel and Instruction for Poppy Hill, stated that he had been under the impression that ASL was the language of instruction in the DHH classrooms, but after speaking with several individuals realized, "That may not be the case." He further stated the belief that there was a kind of combined ASL - oralist approach, but that he was not sure what the exact policy was on language use.

Mr. O'Hara, the principal at Panguitch expressed his frustration at his lack of knowledge regarding the DHH program. He stated that, "There is a whole lot I need to know," due to the fact that the DHH program had just recently been located to his site. He was unaware of which language was in use within the DHH classrooms, but indicated that he, "Trusted the County's expertise."

Mainstreaming Practices - Panguitch Elementary School.

While Ruben attended school at Panguitch Elementary School, he was, at the mother's request, mainstreamed into a regular education classroom, along with two other DHH students, for approximately 75 percent of his day. The mother requested he be placed outside of the DHH classroom for the majority of the school day because she was dissatisfied with the DHH classroom practices, citing low level expectations and low order thinking skill types of activities. During an IEP meeting to discuss placement, Mrs. Burke expressed concern about Ruben's need to develop

signed language, and so Ruben spent the initial hour of his school day working in the DHH classroom working on signed language skills.

Mainstreamed subjects included mathematics, science, and physical education. Ruben and the other two DHH students mainstreamed with him ate lunch and went to recess with their hearing peers. Ruben was unable to mainstream for language arts since the program at Panguitch stressed phonics, thereby excluding the DHH students from integrating into mainstream classes for this subject.

Mr. O'Hara, the principal, when questioned about mainstreaming the deaf, stated that he, "Hoped that the deaf students would learn to read the literature that the other students were responsible for." He also stated that he expected the DHH students would interact and be accepted by the other students on the campus, because he believed that, "Academic problems are linked to low self-esteem." Mr. O'Hara also expressed the hope that in the future, through adaptations, the DHH students could be included in the language arts curriculum.

However, the mainstreamed teacher had not received any inservice in communicating with her deaf students from either Desert View County or the Poppy Hill School District. She was virtually unable to communicate with Ruben, and was forced to rely exclusively on the interpreter who accompanied Ruben to interact with him, as well as for all

academic instruction. During informal observations, there was little or no direct interaction among the hearing teacher and the other two deaf students mainstreamed into the classroom.

Ruben and his deaf peers were grouped in close proximity to one another in the front of the mainstreamed classroom. Only one of the hearing peers in the class had any knowledge of signing, and Ruben's interactions with his hearing peers was limited to gestures. His hearing peers in the mainstreamed classroom did make an effort to include him and the other deaf students into their play during recess, but the language barrier among them considerably limited communication and social interactions both within and outside the classroom.

While in the mainstreamed hearing classroom, Ruben frequently had trouble attending to task. At times he would become disruptive and had to be sent back to the DHH classroom. Mrs. Burke, during a parent-teacher conference, expressed her concern over Ruben's behavior and his difficulty with the mainstream classroom, citing the increasing frequency with which he was forced to return to the DHH classroom. Additionally, his mother reported that homework from the mainstreamed class was inappropriate for deaf students (e.g., rhyming words) and that Ruben frequently complained that he did not want to attend school. At the final IEP meeting at Panguitch, it was agreed upon by

Ruben's mother, Mrs. Burke, Mrs. Wynne, Mrs. Gardner, and the Poppy Hill School District psychologist, that Ruben's placement at Panguitch did not appear to be the least restrictive environment to meet his needs and that he would be transferred to the DHH program at Vista del Lago School where there was a deaf teacher employed.

Deaf and Hearing Bilingualism - Panguitch Elementary School.

When questioned during the interviews about bilingual theory and language minority students, neither Mrs. Burke nor Mrs. Wynne indicated that they were very knowledgeable about the subject. Mrs. Burke state that, "I'm not real familiar with those kinds of ideas." Mrs. Wynne questioned, "Is that the immersion program?" When prompted with the names of several leading theorists in bilingual education, Mrs. Wynne did state that she had heard of their names. However, Mrs. Burke had not heard of any of their names prior to the interview.

In discussing the possible application of bilingual education theory to a deaf context, Mrs. Wynne stated that, "Personal communication and written language are taught in two different ways ... you personally communicate through ASL. Written language is in English ... it's just like English immersion for the Hispanic kids who come from Mexico ... it's ASL immersion and the survival is in the communication."

During the interview with Mr. Connor, he stated that he was familiar with bilingual theory and that he supported bilingual education, but that it was not his area of expertise. When questioned about the possible application of bilingual education theory to deaf education, Mr. Connor professed a lack of knowledge, but stated he, "Would love to learn more about it."

Mr. O'Hara, who at one time had been a bilingual teacher in a migrant education program for another district, strongly supported bilingual education. He stated that language minority students must be taught the core curriculum in their native language while being taught English as a second language in order to keep them at grade level. During the interview, when questioned about deaf bilingualism, Mr. O'Hara indicated a lack of knowledge since the DHH program was new to his campus, but that he, "Would assume that the theory would be the same."

Site Description - Vista del Lago Elementary School

Vista del Lago School was also a regular education campus serving 1,047 students in grades kindergarten through sixth. The school was located within the city of Arroyo Seco, also a rural-suburban community several miles to the north of Poppy Hill, in an established, well-kept neighborhood. Within the campus, there were six kindergarten classrooms, five classrooms each for grades one through five, and four sixth grade classrooms.

The DHH students were housed in a classroom in the school building in close proximity to the other primary level classrooms. Each of the primary classrooms shared a teacher work and storage area with one other primary classroom. The DHH classroom here was a full sized room connected to a second grade regular education classroom via the common teacher work area. Because only one DHH class had been established by Desert View County at Vista del Lago School, grade levels within the DHH class ranged from preschool through sixth grade. There were a total of ten DHH students in the program at this site. The teacher, Mrs. Thomas, and one of the aides in the class were deaf adults. The remaining aides and interpreters who worked in the program at this site were hearing. During the course of the study, the subject attended second and third grade in the same DHH class with Mrs. Thomas.

Language Use and Development - Vista del Lago
Elementary School.

Mrs. Thomas, the deaf teacher in the DHH classroom at Vista del Lago School, has a Master's Degree in Deaf Education. She was raised in a hearing family who utilized an oralist approach with her. Mrs. Thomas' first language was oral and written English, but she subsequently learned ASL in the student dormitories while attending a state school for the deaf. The program at the state school adhered to an oralist philosophy; hence, students were

prohibited from using their hands to communicate while in the classroom. Mrs. Thomas recalled having to write 500 times, "I will not use my hands to talk," or having to wear a sign which said, "I am a monkey," when caught using her hands, even in gesture accompanied by oral speech. She is fluent in both English and ASL.

When questioned about which language was used for instruction in her DHH classroom, Mrs. Thomas indicated that ASL was the primary language used in the classroom. Signing Exact English was employed to teach English grammar during reading and writing activities, but that she also, "Goes back to ASL to get the concepts across," and that, "Kids need to have a basic language to begin with, so ASL is what I use." Mrs. Thomas expressed her belief in the need to use a natural language with children for cognitive development; hence she used ASL since, "SEE is a code for English and not a natural language." She also stressed the need for correct language models, especially since so many deaf children come to school without any kind of a language base.

Informal classroom observations revealed that Mrs. Thomas exclusively used ASL signs in her communicative interactions with students; however, the syntactical form of much of the classroom sociolinguistic functions resembled a pidgin form of ASL and English. This pidgin form of signed language followed the syntactical structure of English while utilizing ASL signs.

Interviews and additional observations also revealed that fingerspelling activities, both within formal spelling functions and more pragmatic functions played an important part of day-to-day interactions. Mrs. Thomas stated that since fingerspelling formed such an integral component of ASL, she felt it was important for students to be exposed to fingerspelling and to have daily opportunities to practice it.

With regard to policy and language use, Mrs. Thomas expressed her frustration with a lack of policy from the Desert View County Central Administration. She stated that since each teacher within the DHH program did not utilize the same language for instruction, often the lack of consistency resulted in little or virtually no basic language skills in the student. Mrs. Thomas considered this a major hindrance towards deaf students' academic learning and success.

When questioned about developing metalinguistic skills in her deaf students, Mrs. Thomas expressed the importance of recognizing the contextual functions of both ASL and English. She stated that, "They must understand that they are using two different languages ... how each one works and when to use it." During daily classroom activities, Mrs. Thomas indicated that she explained to her students on a daily basis that SEE is not a language, but a code used for reading and writing functions, and that ASL is a natural

language used for communicative functions.

Mrs. Gardner, the Area Principal for Vista del Lago School, was at one time an oralist teacher for the deaf. When discussing language use in the classroom, she also discussed the need for language development in deaf children, since their limited sign language experience, "Presents a cognitive deficit in terms of language experience." She stated that ASL was the language which was used in Mrs. Thomas' DHH classroom, and that she did not believe that SEE, as "What I remember Signed Exact English," was used in Mrs. Thomas' classroom, not even for literary functions. However, Mrs. Gardner did say that when Mrs. Thomas was working on language arts, "She's signing English structure, sentence structure."

During an interview with Mr. James, the Director of Pupil Personnel Services for the Arroyo Seco School District, he stated that a primary goal of the DHH program at Vista del Lago School was to, "Develop equal proficiency with American Sign Language as a communication tool ... and ... reading and writing in English." He also stated the hope that deaf students in the program would be able to, "Utilize oral skills to the extent appropriate to the individual." Mr. James stated that there was no official language policy within the Arroyo Seco School District because they do not operate the program, per se. However, he did indicate that there was an agreement with Desert View County to develop

campuses where there would be, "Enough exposure to American Sign Language ... by having peers ... fluent in ASL ... and also hearing students that would be encouraged to develop ASL."

When questioned about which signed language was actually in use in Mrs. Thomas' classroom, Mr. James stated his belief that ASL was the primary language of instruction, and that he did not believe that Mrs. Thomas used any SEE. He further stated that when Mrs. Thomas is working on language arts, "She's signing English structure, sentence structure," but that she was using ASL based signs.

Mainstreaming Practices - Vista del Lago Elementary School.

After being transferred to Vista del Lago Elementary School, Ruben spent approximately 80 percent of his school day in the DHH classroom with Mrs. Thomas. He was mainstreamed into a hearing classroom with an interpreter for the subject of mathematics. The hearing teacher in the mainstreamed classroom also had little signing ability, but benefited from four years experience working with Mrs. Thomas and the deaf students in the program. Reports from the mainstreamed teacher and the interpreter who accompanied Ruben indicated that although he was at below grade level in math, he demonstrated effort and was making progress. Also, he presented no behavior problems in the mainstreamed class. Additionally, the interpreter, in a conversation with Ruben's mother, indicated that the hearing teacher made an

effort to include Ruben in classroom activities, frequently "calling on" him for the correct answer.

Informal observations revealed that outside of the mainstreamed classroom context, Ruben had little interaction with hearing peers in the classroom. During recess time, he tended to socialize with his deaf peers, and Ruben appeared not to have developed any friendships with the hearing students at Vista del Lago. Outside of recess time and the mainstreamed math classroom, Ruben's only other contact with the hearing students at the school was at lunch time in the cafeteria where he sat at a lunch table with his other deaf peers, frequently accompanied by Mrs. Thomas, and the aides and interpreters from the DHH classroom.

Deaf and Hearing Bilingualism - Vista del Lago Elementary School.

Mrs. Thomas, during her interview and also during subsequent informal conversations, stated that she had some knowledge of bilingual theory and its application to the deaf population. While working in a previous district with a large language minority student population, she had received inservices on bilingual education theory with regard to Hispanic students, but had not received any formal inservices on deaf bilingualism. Her philosophy on deaf bilingualism stemmed from her own experiences as a deaf person, as well as from professional readings.

When discussing classroom practices with regard to English and ASL, Mrs. Thomas stated that, "It's bilingual for sure," and that deaf students needed to have a base in a natural first language before they could transfer the concepts into a second coded language. She again cited her frustration with the lack of consistency in language use throughout the DHH program, stating that students who attend different DHH classrooms with varying language philosophies and practices resulted in confusion on the part of the student. Mrs. Thomas said often students wonder, "Like, what is my first language?"

Mrs. Gardner, when questioned about bilingual education, stated that Desert View County had presented inservices to the staff on limited and non-English speaking students, but not specifically with regard to ASL as a primary or secondary language. Mrs. Gardner said that even though she, "Would not be able to expound on it," that she has, "A sense of language ... in terms of language acquisition," but that she was not up-to-date on deaf bilingualism.

Mr. James, during his interview, specifically discussed deaf bilingualism in the program. He stated, that his philosophy was that, "Campuses were user friendly to bilingual development," and that even for deaf students who had oral and written English as a first language, that they would develop skills in ASL as well in order to develop a

second language. He believed that this bilingualism would be valuable and would give these students, "A sense of belonging to the deaf community."

Chapter 4

Analysis and Results

Deaf educational policy, and how said policy was interpreted into pedagogical practices at the two sites selected for this study, formed the bases for data analysis. These pedagogical practices were then examined as they related to the socioeducational experiences of the focal student, a profoundly deaf eight year old male.

Data analyzed for this study included the legal documents related to deaf education at the federal, state and local levels. Data also included taped interviews with the various constituents responsible for the DHH program at the two sites selected for this study (See Appendix C for Interview Questions), as well as classroom observations.

During the course of this study, the focal student, Ruben, attended first grade at the DHH program run by Desert View County at Panguitch Elementary School, which was a regular education campus within the Poppy Hill School District. The teacher for the program, Mrs. Burke, was a hearing adult with no formal signed language training. While at this campus, Ruben was mainstreamed for the majority of his day in a regular education classroom. The focal student then attended second and third grade at the Desert View County DHH program housed at Vista del Lago Elementary School which was a second regular education site within the Arroyo Seco School District. The teacher for

this second site, Mrs. Thomas, was a deaf adult fluent in both ASL and English. Ruben was mainstreamed at this campus for approximately 20 percent of his school day.

Analysis of the data, with regard to language policy and practices at both sites, found a lack of guidance with regard to language use within the various legal documents examined, as well as at the local county and district policy level. While communication was recognized as integral to academic success at both the legislative and at the local level, responses during interviews revealed confusion on the part of the two Desert View County Administrators as to which language was in use within the DHH classroom they were responsible for, and a virtual absence of knowledge of language use within the DHH classrooms on the part of the Administrators at the Poppy Hill School District. In contrast, the Administrator responsible for the program at the Arroyo Seco School District site seemed to have more of an awareness of actual language use within the DHH classroom, as evidenced by his responses during interviews.

The Total Communication philosophy which dominated pedagogical practices within Mrs. Burke's classroom emphasized oral English accompanied by coded English. American Sign Language was relied upon solely for conceptual development when SEE failed to work as a cognitive tool. These practices were based on Mrs. Burke's experiences as an oralist teacher for the deaf, as well as her belief that SEE

formed the basis for the Desert View County language policy. However, during the interview with Mrs. Wynne, the Area Principal for Mrs. Burke's classroom, she indicated that there was no official language policy within Desert View County, and expressed her belief that only ASL was used in Mrs. Burke's classroom. These responses contradicted those of Ruben's classroom teacher, and indicated a lack of knowledge as to educational policy and practice within the DHH program on the part of both Mrs. Burke and Mrs. Wynne.

The pedagogical practices within Mrs. Thomas' classroom emphasized ASL as a linguistic tool to construct meaning and to facilitate cognitive development. Signing Exact English was utilized solely for literary functions. These practices were based on Mrs. Thomas' experiences as a deaf person, as well as her training for her Master's Degree. Mrs. Thomas was not aware of any official language policy within Desert View County and believed that this lack of guidance resulted in a non-cohesive language program. This was considered by Mrs. Thomas to be especially true for those deaf students whose transience between program sites resulted in confusion as to language use and its functions in the varying classrooms. Mrs. Stern, the Desert View Administrator in charge of both DHH programs also expressed concern over the lack of cohesion with regard to language use in the DHH classrooms, not only with regard to the two study sties, but for Desert View County DHH classrooms

countywide.

With regard to mainstreaming, data revealed an intent from the various constituents at the local level to comply with the legal requirements for LRE set forth by law. Analysis of the legal documents related to LRE indicated a distinct preference by the Legislature to mainstream the disabled into regular classrooms with non-disabled peers.

At the initial site, the focal student spent most of the school day mainstreamed into a regular education first grade classroom with two other deaf students. However, behavior problems frequently resulted in Ruben's return to the DHH classroom. Little adaptation for deaf students, other than a signing interpreter and placement of Ruben and his deaf mainstreamed peers in the front of the room was in evidence. Direct hearing teacher/deaf student interaction was made virtually impossible by the language barrier; hence, the interpreter had the dual role of teacher and interpreter. Little or no communicative interaction between Ruben and his hearing peers was in evidence, except for recess time where gestures formed the basis of their social interactions. Since the program had just recently been relocated to this site, training and preparation of the mainstreamed hearing teacher was extremely limited, and as Mr. O'Hara, the Principal of the site indicated, there was a lack of knowledge and experience which forced a reliance on Desert View County for guidance and "expertise".

At the second site, the focal student was mainstreamed for a far shorter period of the day. Adaptation here for the subject of mathematics also included a signing interpreter. Interestingly, in contrast to the first site, Ruben was placed with his interpreter in the rear of the classroom. Ruben was the only deaf student mainstreamed into this second grade classroom. Again, the language barrier prevented direct interaction between the hearing teacher and the focal student. However, the mainstreamed teacher at this second site benefited from four years' experience working with the DHH students in the program. Also, Ruben appeared to make the transition to the mainstreamed context at this second site with less difficulty than at the first site since his behavior presented no problems and the regular education teacher reported he was making progress.

Data analysis, with regard to deaf and hearing bilingualism, indicated that ASL is not considered one of the languages covered under the Bilingual Education Act of 1968; hence, deaf students are not considered by the legislature to be language minority children. This is in spite of the fact that many deaf children have marked difficulty in learning to read and write in English and that a percentage of them, albeit small, do come from environs where ASL and not English is the primary language (i.e., deaf children born to deaf parents).

Most of the constituents interviewed professed a lack of knowledge with regard to deaf and/or hearing bilingualism. Mrs. Burke, the hearing teacher, was completely unfamiliar with the theoretical framework which guides bilingual education. Hence, the pedagogical practices within her classroom did not reflect any notion of deaf bilingualism. The linguistic emphasis in this classroom was on English language development. American Sign Language was utilized for conceptual development only and little or no fingerspelling, and integral part of ASL, was in evidence. Metalinguistic skill development also was not in evidence in Mrs. Burke's classroom. And Mrs. Wynne, her Principal, did not deem it necessary to develop metalinguistic skills in deaf students nor to have ASL linguistic models in the classroom. She expressed the belief that the hearing aides, trained in ASL, were sufficient language/cultural models for deaf students.

In contrast, Mrs. Thomas, the deaf teacher, and Mr. James, from the Arroyo Seco School District, indicated some knowledge of bilingual education for hearing language minority students and expressed a strong belief in the existence of deaf bilingualism as well as the need to translate this bilingualism into classroom practice regardless of legislative policy. Mrs. Thomas' daily pedagogical practices included the development of metalinguistic skills in her deaf students to help them

understand the social contexts and pragmatic functions of both ASL and English. And Mr. James specifically stated that there was a verbal agreement between Desert View County and the Arroyo Seco School District to develop deaf bilingual campuses.

Chapter 5

Discussion

Interpretation

The lack of a concrete policy at the various levels has resulted in a DHH program which is not cohesive, and which vacillates between ASL, a natural language, and SEE, a coded form of English. Language use within the classroom is guided more by teacher and administrator experience, training and educational philosophy rather than appropriate theoretical research and pedagogical knowledge. While both teachers, to varying degrees, recognized that sociocultural and sociolinguistic experiences form the basis for cognitive development, this belief translated into very different educational philosophies and sociolinguistic classroom practices within the same DHH program.

Prior psychosociolinguistic theory and the research literature suggest that a mutual semiotic system within sociocultural mediated interactions is the crux for the development of cognitive functioning. Comprehensible input is at the heart of these social interactions. Given the data presented here, it would seem that limiting opportunities for the development of a mutual system; or in this case, systems, would diminish opportunities for linguistic and cognitive development in any child, regardless of the modality of the interaction.

The hearing teacher's lack of training in ASL, her educational philosophy on language and children, her experience as an oralist teacher, and the absence of any native ASL users in the classroom prevented the deaf students in her classroom access to sociolinguistic and sociocultural models for a natural language. And while Mrs. Burke did seem to have some understanding of the importance of social interaction with language development, her inability to fluently sign with her students appeared to present a sociolinguistic and cognitive barrier she did not seem aware of. The communicative competence which Daniels (1995) suggests is necessary for academic success did not appear to concern Mrs. Burke, given her remarks about, "Communication as long as I can communicate." Additionally, within a sociolinguistic perspective, the common semiotic tool required for sufficient engagement within the student-teacher ZOPED was not in evidence. Mutual understanding of the task, or intersubjectivity, was diminished because of the deaf student-hearing teacher language barrier. As a result, opportunities for self-regulating metacognitive behavior, on the part of the deaf students, which the literature suggests would facilitate cognitive development, were impeded.

Mrs. Thomas, the deaf teacher, had a sociolinguistic and metalinguistic advantage in that her fluency in both ASL and English allowed Mrs. Thomas to facilitate her deaf

students' learning of the pragmatic functions of both languages. Additionally, she was able to provide her deaf students with a sociocultural model, while the hearing adults provided alternate sociocultural models as well. No linguistic barrier was in evidence, and it would appear from the data that Mrs. Thomas' classroom facilitated sociolinguistic interactions with her deaf students, suggesting increased opportunities for cognitive development. These opportunities, however, were diminished by the constraints forced on Mrs. Thomas by the multi-graded classroom context at Vista del Lago School.

Based on her responses to the interview questions, Mrs. Thomas seemed to have a theoretical understanding of the difference between language acquisition and language learning. This understanding translated into pedagogical practices which facilitated the learning of the pragmatic and syntactic functions of both ASL and English. American Sign Language was the mutual semiotic tool within the classroom student-teacher interactions, while coded English, within its written linguistic functions, was taught as a second language.

When considering mainstreaming the deaf, the intent of the legislature to protect the civil rights of the disabled through inclusion, while well meaning, overlooked the distinct communication needs of the deaf. Few of the language recommendations made by the Commission on the

Education of the Deaf (1988) have been adopted into legislative policy, and the Policy Guidance issued by Lamar Alexander (1992) has had limited impact at the classroom implementation level. Given the limited adaptations and the resulting constraints (i.e., the dual role for the signing interpreter, the lack of direct interaction between hearing teachers and deaf students, the limited social relationships with hearing peers), it would appear that the mainstreamed classroom context often cannot facilitate the mutuality and engagement required for cognitive development within Vygotsky's Zone of Proximal Development.

The crucial element of a shared linguistic system which facilitates cognitive development appears to have been lost on the legislature in its zeal to include the disabled with their non-disabled peers. Research on the socioeducational experiences of deaf children within the mainstreamed context (Stinson & Leigh, 1995; Ramsey, 1995) has shown that such placement in classrooms which lack a common communicative system often results in the isolation of deaf children; thereby creating the most restrictive environment instead of the least restrictive environment. This was hardly the intent of the legislative mandate for inclusion.

Thus, the organization of many mainstreamed classrooms where deaf children are placed creates a negative ZOPED where the deaf students, because of the limited access to

sociocultural interaction with their hearing counterparts, fails to realize their cognitive potential. The vast wealth of sociohistorical information which the hearing student incidentally learns through the day-to-day interactions within the classroom is not readily available to the linguistically isolated deaf child. Additionally, given that adaptations made for the deaf child in the mainstreamed classroom are usually limited to the presence of an interpreter, the multiple possibilities of shared cognition within a given classroom ZOPED are restricted to the two people utilizing the same semiotic system.

With regard to deaf bilingualism, in spite of the historical exclusion of the deaf community's natural language, ASL, from legislative educational policy, a form of deaf bilingualism does exist within the deaf community. For many deaf people who cannot readily access the oral functions of English as a semiotic tool, signed language becomes their main linguistic tool for the construction of meaning. Deaf people, within their various daily sociocultural experiences, must negotiate both signed language as well as written and oral English. However, as Krashen (1981) maintained, children must possess a comprehensive ability in their first language before learning the functions of a second language. The acquisition of a first natural language occurs subconsciously within daily sociocultural interactions.

These interactions facilitate the construction of meaning between the participants and form the basis for a child's thinking processes and the subsequent ability to learn a second language. Crucial to the learning of any second language is the comprehensible input of that language which incorporates the sociocultural experiences of the student outside of the classroom context. The construction of meaning, which is the purpose of any social interaction, is inhibited when comprehensible input is diminished. This, sadly, is often the case in deaf classrooms which have historically focused on English language learning, while ignoring the cognitive functions and the sociolinguistic value of a natural signed language such as ASL. As Baker (1993) noted, when majority languages, such as English, are given a higher level of prestige, a shift toward that language can occur. Within a deaf language minority context, the low prestige given to ASL has resulted in its virtual exclusion as a meaning-making tool in many deaf classrooms.

The sociohistorical milieu which surrounds the deaf child has often been dominated by the hearing culture's view of deafness as a disability. As Padden & Humphries (1988) noted, this often has translated into tragic policy and practice. Hearing parents of deaf children, embarrassed and/or ashamed of the visibility of signed language, and unaware of the crucial role that language plays in the

cognitive development of their child, too often have focused their communicative efforts on oral language learning as opposed to the mutual construction of knowledge via a natural signed language such as ASL. Thus, many deaf children, severely lacking in successful early sociolinguistic interactions, arrive at school in a linguistic limbo where cognitive development has been restricted. Academic potential is further compromised in the deaf classroom which does not facilitate the development of a mutual semiotic system via a natural signed language. For these children, language development either within the home or the educational context, is not a possibility, let alone their natural right as Freire (1993) insisted. Linguistic research (cited in Drasgow, 1993) has questioned the viability of SEE and other codes for English to provide deaf students with sufficient comprehensible input to access the core curriculum. These sociolinguistic issues mirror the educational experiences of other language minority children whose primary language has not formed the basis for instruction, or has been given solely a token value while the language minority child is either rapidly transitioned or completely submerged in English language instruction, regardless of the comprehensible or incomprehensible nature of the linguistic input.

Mrs. Thomas, the deaf teacher, lived and breathed deaf bilingualism on a daily basis both with her students and

outside of the classroom. Depending upon the sociolinguistic context, the deaf students in her classroom were guided through the registers and functions of both ASL and English throughout the day. Metalinguistic skills were an expressed goal of Mrs. Thomas and her pedagogical practices were a reflection of her understanding of the role that metalinguistic skill and bilingualism play in our language tool kits. In contrast, Mrs. Burke, unfamiliar with either hearing or deaf bilingual issues, relied on English, her primary language, in both its oral, coded and written forms, for her sociolinguistic interactions with deaf students. Mrs. Burke's limited ability in ASL frequently prevented her from providing sufficient linguistic input to her deaf students. Comprehensible input was diminished, as evidenced by Mrs. Burke's need to return to signed language to get a concept across when other "methods" had failed.

Additionally, with regard to policy articulation and implementation at the two sites involved in this study, it would appear that the present lack of coordination and articulation among the various administrators and practitioners both within the Desert View County and the Poppy Hill and Arroyo Seco School Districts has not contributed positively to the academic outcomes of their deaf students. Responses to the interview questions indicated a profound lack of both theoretical as well as

pedagogical knowledge on the part of virtually all of the administrators and policy makers at the local level.

Participants appeared to adhere to the old adage that, "The left hand does not know what the right hand is doing."

District site administrators expressly relied on the "expertise" of the County constituents, without any real knowledge of said "expertise," thereby contributing to the marginalization of the delivery of their special education services. Indeed, administrators and policy makers at both districts, relegating both the responsibility and the accountability for deaf education programs to the Desert View County, failed to recognize that the "Education of students with disabilities is the responsibility of the entire District -- general education as well as special education" (Barber & Kerr, 1995, p. 3).

Implications

The results of this study would suggest that there is a need for cohesive deaf educational policy which has its basis in scientific psychosociolinguistic research. Hearing educators and policy makers must remove themselves from their perspectives as members of the dominant majority and formulate policy based on the specific communicative and cognitive needs of deaf children. An understanding of the sociocultural and sociolinguistic nature of cognitive development should be the guiding principle in setting educational policy. The deaf child's construction of

meaning can only take place in mutually comprehensible sociolinguistic interactions. For many of them, this translates into the use of a natural, signed language such as ASL as the medium of instruction within the classroom. In order to effect positive academic outcomes for deaf children, policy makers need to recognize ASL as a bona fide language, and, via policy setting, encourage its use in the classroom. Policy makers and educational administrators also need to encourage the training and employment of teachers competent in both ASL and English. As Moores (1990) suggested, the gap between pertinent theoretical research conducted at the university level and educational policy implemented into pedagogical practices at the classroom level should be bridged through the development of university and school district partnerships. Pilot programs to implement research findings could then be initiated.

Teachers of the deaf should have a comprehensive understanding of the relationship between language and cognition and how this dynamic relationship translates into effective classroom practices. Correct linguistic models in both ASL and English should be the "norm" in the deaf classroom instead of the present "exception."

Sociolinguistic interactions between teachers of the deaf and their students should facilitate the mutuality and engagement critical for the construction of meaning within the classroom ZOPED. Successful academic outcomes for deaf

students hinge on the utilization of a shared semiotic system which enhances comprehensible input.

The results also indicate an overdue need to address the concept of Least Restrictive Environment with respect to the inclusion of deaf students in the mainstreamed hearing classroom. Communication is at the heart of academic success. Access to a socioeducational milieu which facilitates cognitive development should form the primary basis in determining the LRE for a deaf student. Legislators must realize that inclusion does not refer to the social training of the disabled, nor for that matter the non-disabled; but rather, the adaptation of regular education classroom practices which provide the disabled student better access to the core curriculum and which facilitate academic success. The sociolinguistic and socioeducational isolation which has been so prevalent in mainstreamed deaf education must be addressed in the setting of policy. Proper planning through the IEP process, prior to placement in the mainstreamed setting, should include sufficient training in signed language. Indeed, Federal and State Laws require School Districts to provide training for teachers with students of special needs. Proper training of regular education hearing teachers would allow the teacher to engage the deaf child in direct sociolinguistic cognitive interactions, instead of relying on the interpreter for all communication with the deaf student; thus increasing

mutuality and engagement, as well as inclusion within the regular education classroom.

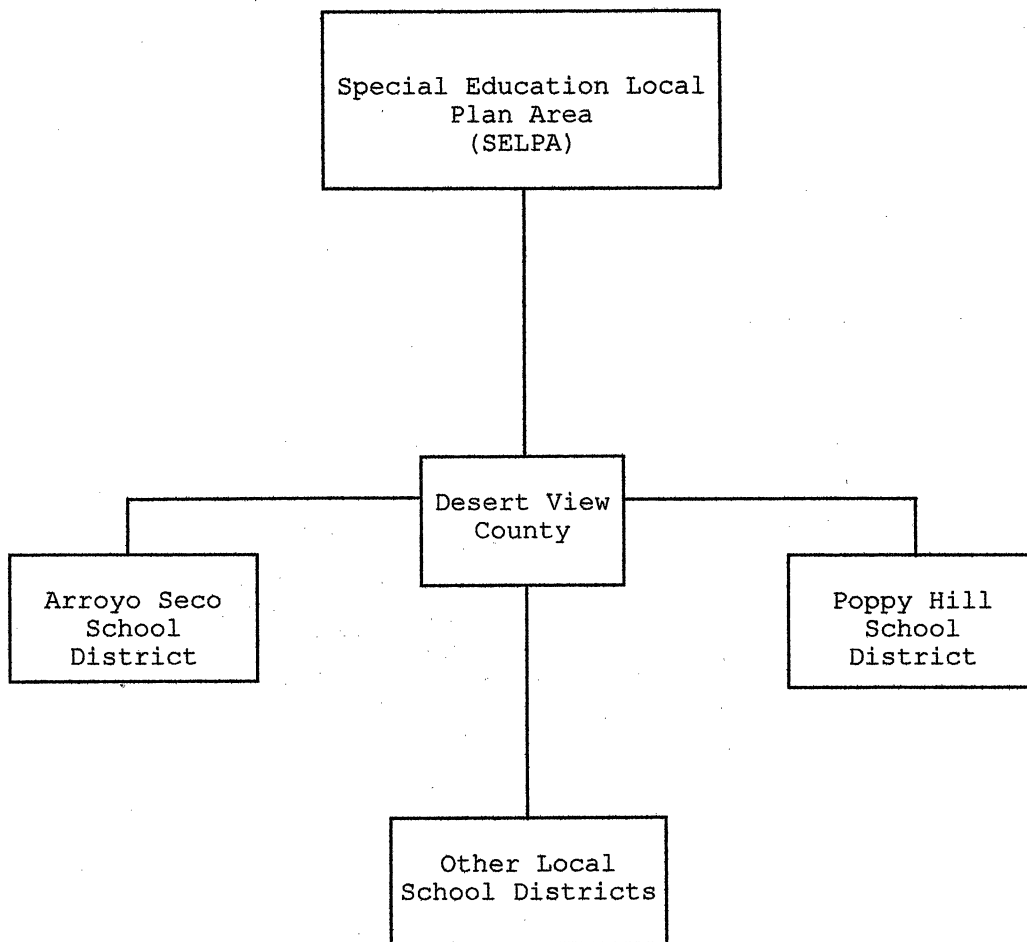
And finally, this study indicates that the application of a bilingual framework to the pedagogical practices within deaf classrooms would be beneficial to deaf students. This framework would encourage the acquisition of a natural signed language such as ASL to enhance cognitive development within the deaf child who cannot readily access oral or written English. Signed language, while providing far greater comprehensible input than coded forms of English, could then be used as the medium of instruction for the language learning of English in its written and/or oral functions, whichever would be appropriate for the deaf child. Legislative funding, in the form of educational grants, could be initiated to pilot such programs, as well as university partnerships, thereby adding to the body of research on successful pedagogical practices with deaf students. Subsequent educational policy, from the Federal level down to the local implementation level, should be based upon these research findings.

In closing, with specific regard to the sites involved in this study, as well as with regard to all deaf education programs, we are compelled to consider Barber & Kerr's (1995, pp. 6-7) findings with regard to the Chanda Smith Consent Decree: "A school district out of compliance is off course and cannot ... claim to be meeting the educational

needs of its students with disabilities ... The harm suffered by children ... is incalculable, tragic and unacceptable..."

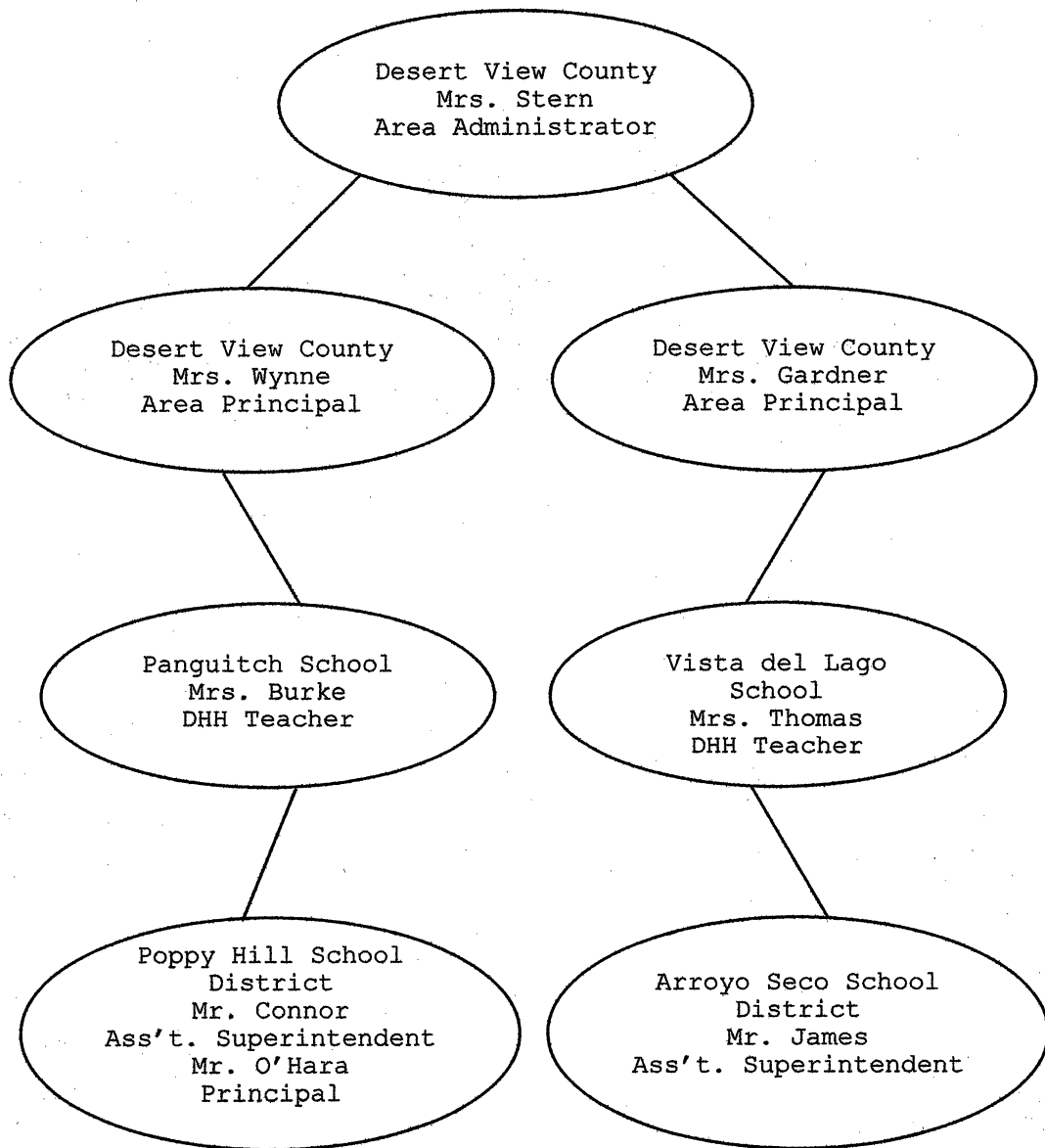
Appendix A

Members of the Special Education Local Plan Area



Appendix B

Diagram of County and District Level Personnel and Their Respective Locations



Appendix C

List of Interview Questions

What are your expectations for your students in the program, specifically in the area of language arts?

What are your main concerns for the DHH students in the program with regard to language acquisition and development?

Are there any special considerations given to students in the DHH program?

What are the signed languages and/or systems used in the DHH classrooms with deaf students?

Is there a policy with regard to language use in the DHH classroom?

What are some of the ways in which educational policy is implemented in the program?

Is there a specific mechanism for implementation? If so, what is it?

What type of articulation takes place between the District and the County?

What knowledge do you have of bilingual education theory?

What knowledge do you have of the application of bilingual education theory to a deaf context?

What attempts are made to develop a metalinguistic sense in the children?

What are some of the ways in which you would improve the program?

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